

C O N F I D E N T I A L

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1 STATE OF MINNESOTA DISTRICT COURT

2 COUNTY OF RAMSEY SECOND JUDICIAL DISTRICT

3 - - - - -

4 The State of Minnesota,

5 by Hubert H. Humphrey, III,

6 its attorney general,

7 and

8 Blue Cross and Blue Shield

9 of Minnesota,

10 Plaintiffs,

11 vs. File No. C1-94-8565

12 Philip Morris Incorporated, R.J.

13 Reynolds Tobacco Company, Brown &

14 Williamson Tobacco Corporation,

15 B.A.T. Industries P.L.C., Lorillard

16 Tobacco Company, The American

17 Tobacco Company, Liggett Group, Inc.,

18 The Council for Tobacco Research-U.S.A.,

19 Inc., and The Tobacco Institute, Inc.,

20 Defendants.

21 - - - - -

22

23 DEPOSITION OF ALAN RODGMAN

24 Volume I, Pages 1 - 292

25

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1                             (The following is the deposition of ALAN  
2 RODGMAN, taken pursuant to Notice of Taking  
3 Deposition, by videotape, at the offices of Womble  
4 Carlyle Sandridge & Rice, Attorneys at Law, 200 West  
5 Second Street, 1600 BB&T Financial Center,  
6 Winston-Salem, North Carolina, on June 12, 1997,  
7 commencing at approximately 8:48 o'clock a.m.)

8

9

10

11 APPEARANCES:

12

13                             On Behalf of the Plaintiffs:

14                             Daniel A. O'Fallon

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8              Paul G. Crist  
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11             Cleveland, Ohio 44114  
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13        On Behalf of Brown & Williamson Tobacco  
14        Corporation, The American Tobacco Company and  
15        R.J. Reynolds Tobacco Company in Civil No.  
16        2-473-95:  
17              Dalton Townsend  
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1       On Behalf of The Council for Tobacco  
2              Research-U.S.A., Inc.

3              Harry Zirlin  
4              Debevoise & Plimpton  
5              875 Third Avenue  
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8       On Behalf of Lorillard Tobacco Company:

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12             30 East Seventh Street  
13             St. Paul, Minnesota 55101-4999

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15       On Behalf of Lorillard Tobacco Company in Civil  
16              No. 2-473-95:

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1 On Behalf of Plaintiffs Arch in Civil No.

2 96-5903-CN and Plaintiffs Perry in Civil No.

3 2-473-95:

4 J. D. Lee

5 Lee Lee & Lee

6 422 Gay Street

7 Knoxville, Tennessee 37902

8

9 On Behalf of the Witness:

10 William A. Blancato

11 Bennett & Blancato, LLP

12 3334 Healy Drive, Suite 203

13 Winston-Salem, North Carolina 27103-1476

14

15 ALSO PRESENT:

16 Thomas F. McKim

17 Assistant General Counsel - Litigation

18 R.J. Reynolds Tobacco Company

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5	1048	North Carolina Order and	
6		Subpoena, 8 pages	10
7	1049	"THE OPTIMUM COMPOSITION OF	
8		TOBACCO AND ITS SMOKE,"	
9		November 2, 1959, Bates	
10		50094 5942-5	85
11	1050	"THE SMOKING AND HEALTH	
12		PROBLEM -- A CRITICAL AND	
13		OBJECTIVE APPRAISAL," Bates	
14		50482 2847-52	102
15	1051	"Smoking and lung cancer: A	
16		second opinion," Bates 50463	
17		8051	115
18	1052	"NITROSAMINES IN CIGARETTE	
19		SMOKE," August 31, 1964, Bates	
20		50101 3277	125
21	1053	February 27, 1973 interoffice	
22		memorandum, Rodgman to Senkus,	
23		Bates 50101 2655-9	140
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1 1054 "BIOLOGICAL/CONSUMER  
2 PREFERENCE RESEARCH CONDUCTED  
3 BY PHILIP MORRIS," Bates 50154  
4 3470-3517 151  
5 1055 "MEETING WITH DR. HELMUT  
6 WAKEHAM, VICE-PRESIDENT AND  
7 DIRECTOR OF RESEARCH, PHILIP  
8 MORRIS INC., 10TH SEPTEMBER,  
9 1970," Bates 110315968-71 156  
10 1056 April 16, 1982 letter, Rodgman  
11 to DiMarco, Bates 50154  
12 1374-9 164  
13 1057 "RESEARCH PLANNING MEMORANDUM  
14 ON THE NATURE OF THE TOBACCO  
15 BUSINESS AND THE CRUCIAL ROLE  
16 OF NICOTINE THEREIN," Bates  
17 50091 5683-91 179  
18 1058 "IMPLICATIONS AND ACTIVITIES  
19 ARISING FROM CORRELATION OF  
20 SMOKE pH WITH NICOTINE IMPACT,  
21 OTHER SMOKE QUALITIES, AND  
22 CIGARETTE SALES," Bates 51122  
23 3463-84 189  
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1           1059     "HISTORICAL REVIEW OF SMOKE pH  
2                         DATA AND SALES TRENDS FOR  
3                         COMPETITIVE BRAND FILTER  
4                         CIGARETTES," May 10, 1973,  
5                         Bates 50060 6138-53                 202  
6           1060     "OUTLINE FOR SMOKE pH  
7                         PRESENTATION," Bates 50091  
8                         7535-48                                 209  
9           1061     December 4, 1973 interoffice  
10                         memorandum, Colby to Blevins,  
11                         Bates 50116 6152-3                 212  
12           1062     "TECHNOLOGY: AMMONIATION,"  
13                         Bates 50901 8864-8865A                 215  
14           1063     "IMPROVED AMMONIATED  
15                         RECONSTITUTED SHEET," January  
16                         30, 1978, Bates 50888  
17                         0315-0315A                                 223  
18           1064     "AMES TEST ON SMOKE  
19                         CONDENSATES -- A SUMMARY," May  
20                         9, 1983, Bates 50166 1154-6         229  
21           1065     Appendix F, October 29, 1980,  
22                         Lee to Rodgman, Bates 50505  
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1	1066	September 8, 1980 memorandum,	
2		Rodgman to Morse, Bates 50152	
3		2719-26	245
4	1067	"INVESTIGATIONS OF EFFECTS OF	
5		BRAND SWITCHING ON HUMAN	
6		SMOKING CHARACTERISTICS,"	
7		January 18, 1983, Bates 50100	
8		6404-61	272
9	1068	7/25/83 memorandum, Robinson	
10		to Rodgman, Bates 50268 0871	283
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1 P R O C E E D I N G S

2 (Witness sworn.)

3 (Plaintiffs' Exhibits 1047 and 1048

4 were marked for identification.)

5 MR. O'FALLON: Just as a preliminary  
6 matter, I would ask that everybody please state their  
7 appearance for the record, and would you also please  
8 let me know what action you're appearing in.

9 MR. BLANCATO: Well I guess I'll start. My  
10 name is Bill Blancato, Winston-Salem, North  
11 Carolina. I represent Dr. Alan Rodgman, the  
12 deponent.

13 MR. McDERMOTT: My name is Bob McDermott of  
14 Jones, Day, Reavis & Pogue. I represent R.J.  
15 Reynolds in all of the actions that are subject to  
16 this deposition.

17 MS. EASON: My name is Marcia Eason. I'm  
18 with the law firm of Miller & Martin, and I represent  
19 Lorillard Tobacco Company in the Circuit Court case  
20 entitled William Perry versus Brown & Williamson, et  
21 al.

22 MR. TOWNSEND: I'm Dalton Townsend, Hodges,  
23 Doughty & Carson in Knoxville, Tennessee. I  
24 represent Brown & Williamson and R.J. Reynolds  
25 Tobacco Company in the case of William Perry versus

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1 Brown & Williamson, et al., Knox County Circuit Court  
2 Case 2-473-95. We've been cross-noticed in the Arch  
3 case actually.

4 MR. MCKIM: I'm Thomas F. McKim, assistant  
5 general counsel, Reynolds Tobacco.

6 MS. WALKER: Kristyn Walker, Dorsey &  
7 Whitney, Minneapolis, Minnesota, representing Philip  
8 Morris in the State of Minnesota.

9 MR. ROSTON: Howard Roston, Doherty  
10 Rumble & Butler, St. Paul, Minnesota, representing  
11 Lorillard Tobacco Company for the Minnesota actions.

12 MR. LEE: J. D. Lee in Knoxville,  
13 Tennessee, representing the plaintiffs in Arch versus  
14 American Tobacco pending in Pennsylvania and William  
15 Perry versus Brown & Williamson Tobacco Company, et  
16 al., pending -- pending in Knoxville, Tennessee.

17 ALAN RODGMAN  
18 called as a witness, being first duly  
19 sworn, was examined and testified  
20 as follows:

21 ADVERSE EXAMINATION

22 BY MR. O'FALLON:

23 Q. Dr. Rodgman, my name's Dan O'Fallon. I'm with  
24 the law firm of Robins, Kaplan, Miller & Ciresi, and  
25 I represent the State of Minnesota and Blue Cross

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1 Blue Shield in the pending Minnesota action. This  
2 particular deposition is being taken pursuant to the  
3 Minnesota rules of court as well as the orders  
4 entered by our court. In addition, there has been  
5 entered here in North Carolina a protective order  
6 that is being made applicable to both yourself,  
7 Dr. Rodgman, as well as your attorney, Mr. Blancato,  
8 and we have marked that as Exhibit 1, and it's my  
9 understanding that you have in fact read and signed  
10 that particular protective order; correct?

11 A. Yeah, right.

12 MR. O'FALLON: It's also my understanding  
13 that all counsel here have signed the Minnesota  
14 protective order. Is that true? Would anybody who  
15 has not signed it please speak up.

16 (No response.)

17 MR. O'FALLON: There's also a gentleman I  
18 believe from your firm, Jones Day, --

19 MR. McDERMOTT: Yes.

20 MR. O'FALLON: -- who's --

21 MR. McDERMOTT: Paul Crist, who will be  
22 returning shortly.

23 MR. O'FALLON: Okay. And he represents  
24 RJR?

25 MR. McDERMOTT: R.J. Reynolds Tobacco

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1 Company.

2 MR. O'FALLON: In all actions?

3 MR. BLANCATO: Yes.

4 BY MR. O'FALLON:

5 Q. Dr. Rodgman, your deposition here today is being  
6 taken pursuant to a subpoena, and I've marked that  
7 subpoena as Exhibit 1048. This is a subpoena which  
8 was entered here in the local court and which your  
9 attorney, Mr. Blancato, graciously agreed to accept  
10 for service on your behalf. Do you recognize the  
11 subpoena?

12 A. Yes, I do.

13 Q. One of the things the subpoena has called for is  
14 the production of what have been -- what we have  
15 learned of as the Rodgman diaries, and it's my  
16 understanding that an attorney is out gathering up  
17 those diaries right now and that you're going to  
18 produce them for us here today. Can you --

19 A. They're downstairs. He's going to get them.

20 Q. Can you please tell me what's in those diaries  
21 or generally how you put them together?

22 A. Well they were -- the diaries that I have are of  
23 two types: The kind most people carry in their  
24 pocket, the pocket diary; and then a desk diary. And  
25 what they indicate is that schedules during the

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1 weekday, meetings, trips, and there's a slight  
2 difference between the pocket diaries and the desk  
3 diaries because sometimes my secretary would write in  
4 the desk diary "You have a meeting at 2 o'clock that  
5 has come up," and that would be in there; it may not  
6 be in my pocket diary.

7 Q. Did you keep any other types of diaries while  
8 you were an employee at R.J. Reynolds?

9 A. No, I did not.

10 Q. Did you keep any type of handwritten notes where  
11 you would record the day's activities or note certain  
12 things that you felt were important as the day went  
13 on?

14 A. No.

15 Q. The diaries that you're producing are diaries  
16 you produced in the ordinary course of your business  
17 with R.J. Reynolds; correct?

18 A. That's right.

19 Q. You maintained those in the ordinary course of  
20 business; correct?

21 A. Except for the last -- from 1987 on.

22 Q. And from 1987 on, you're also producing those  
23 diaries as you sit here today?

24 A. Certain pages of them.

25 Q. And why are you producing those certain pages?

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1 A. Because I did some consulting work for R.J.

2 Reynolds.

3 Q. In what years did you do consulting work for

4 R.J. Reynolds?

5 A. Well let me back up. In 1987 I took an  
6 incentive retirement plan that Reynolds had that by  
7 accepting the incentive retirement, it took me past  
8 my 65th birthday, so I left my position actually on  
9 September the 1st, 1987. My official day of  
10 retirement was 1989, March the 1st. And according to  
11 the rules of the incentive retirement, I could not  
12 consult with Reynolds for five years, so there -- I  
13 did some things after that for R.J. Reynolds,  
14 consultation with them.

15 Q. Let me go back and just make sure I understand  
16 this incentive retirement program. What was your  
17 official last day at work at R. -- your official last  
18 day at work at R.J. Reynolds was March 1st of 1989?

19 A. My official -- my last day at work in my office  
20 was August the 31st, 1987; then because of the terms  
21 of the incentive retirement, there were so many weeks  
22 per year that you had been at Reynolds and so on, so  
23 I had 18 months added on to that with full pay. And  
24 officially my last day of employment by Reynolds was  
25 February the 28th, 1988 or February the 29th,

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1 whenever it is.

2 Q. Okay. So from September 1st of 1987 until  
3 approximately March 1st of 1989, you were still  
4 receiving full pay and full benefits from Reynolds,  
5 but you weren't physically at --

6 A. No, I was not.

7 Q. -- the building?

8 And during that time period, that 18 months,  
9 were you actually performing any work on behalf of  
10 Reynolds?

11 A. No, not directly.

12 Q. Okay. Were you performing work for Reynolds  
13 indirectly?

14 A. Yes.

15 Q. How were you doing that?

16 A. I was working with Womble Carlyle staff.

17 Q. And when did you first start to work with Womble  
18 Carlyle staff?

19 A. Well the first time I worked with Womble Carlyle  
20 staff was in 1980 because of a problem with a  
21 competitor cigarette.

22 Q. What competitor was that?

23 A. B&W.

24 Q. Then that was a Barclay cigarette?

25 A. That's right.

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1 Q. Okay. What I'd like to ask you now, though,  
2 is: Is the consulting you did with Womble Carlyle  
3 after your date of retirement -- and let's just call  
4 your date of retirement for our purposes September  
5 1st of 1987.

6 A. Okay.

7 Q. So after September 1st of 1987, when is the  
8 first time that you started to do consulting work  
9 with Womble Carlyle?

10 A. I was actually doing some in 1984.

11 Q. Okay. And was that work separate from your  
12 normal duties at R.J. Reynolds in 19 --

13 A. That's right.

14 Q. Okay. So in 1984 you did consulting work with  
15 Womble Carlyle?

16 A. That's right.

17 Q. What was the nature of that consulting work?

18 A. It was on smoke composition, smoke components.

19 Q. And what cigarette did that involve?

20 MR. McDERMOTT: I -- I -- hold on. Let me  
21 interject here. I want to interpose a privilege  
22 objection on any further description of the work done  
23 by Dr. Rodgman with respect to that consultancy. Let  
24 me check with Womble Carlyle on the precise nature of  
25 that task. It may be we can provide a little bit

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1 more information. I'll check at a break, but for the  
2 time being, I object to any further description of  
3 the nature of the work undertaken.

4 MR. O'FALLON: And you're going to instruct  
5 him not to answer?

6 MR. McDERMOTT: That is correct.

7 BY MR. O'FALLON:

8 Q. Are you going to follow those instructions?

9 A. Yes, sir.

10 Q. At the time you did that work in 1984, were you  
11 still a full-time employee of Reynolds Tobacco?

12 A. I was.

13 Q. Did you receive separate compensation from the  
14 Womble Carlyle firm in order to do that consulting  
15 work?

16 A. No, I did not.

17 Q. You did that work as part of your normal job  
18 duties at R.J. Reynolds; correct?

19 A. I don't know really how to answer that.

20 Q. Well you know what your job -- you know what  
21 your duties and responsibilities were at that time,  
22 sir, so I guess I'm asking you was that part of your  
23 normal job.

24 A. It wasn't in my job description.

25 Q. But was it something that you were expected to

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1 do as part of your position at that time?

2 A. I guess you could say yes.

3 Q. Did you have any choice in the matter?

4 A. Yes.

5 Q. Reynolds would have allowed you to say, "No, I'm  
6 not going to work with Womble Carlyle"?

7 A. That's right.

8 Q. So Reynolds came to you and asked you to work  
9 with Womble Carlyle?

10 A. Reynolds didn't come to me at all.

11 Q. Okay. Did you go to Reynolds?

12 A. No.

13 Q. How did it --

14 How did it happen that you ended up working with  
15 Womble Carlyle on this issue? I'm not asking about  
16 what it is. I'm just asking how you came to work on  
17 it.

18 A. Well I have been involved with the lawyers on  
19 smoking-and-health litigation since 1954.

20 Q. And what lawyers were those? Why don't we  
21 just -- why don't we go back to 1954. What lawyers  
22 did you work with in 1954?

23 MR. McDERMOTT: I'll let Dr. Rodgman  
24 describe in very general terms the nature of the work  
25 he was doing and the lawyers with whom he worked, and

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1 beyond that, I will consult.

2 You may answer, Dr. Rodgman.

3 A. I worked with Mr. H. H. Ramm, that was vice  
4 president and legal counsel for R.J. Reynolds; worked  
5 with several lawyers at Davis Polk Wardwell  
6 Sunderland & Kiendl in New York that was retained  
7 outside counsel by Reynolds.

8 Q. Okay. And did you --

9 And you said you continued to work with those  
10 people throughout your career?

11 A. Well actually in 1967 I didn't work for them the  
12 same way as I had from '54 to '67. I was promoted to  
13 another position and rather than general responses to  
14 certain questions. I didn't work continuously with  
15 them.

16 Q. Okay. I'm going to go back. We're going to go  
17 through your employment history, and at that time  
18 I'll go back and ask you some more -- some more  
19 specific questions. Let's come back to the Womble  
20 Carlyle work you did.

21 In 1984 when you did this consulting, did you  
22 have a separate contract with Womble Carlyle?

23 A. No, I did not.

24 Q. After 1984 when's the next time you consulted  
25 with Womble Carlyle?

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1 A. Well when I embarked on the incentive retirement  
2 September of 1987, I started to do some consulting  
3 work with Womble Carlyle.

4 Q. Okay. Did that work start immediately after the  
5 September 1st, 1987 date?

6 A. No. The first thing I did was take a vacation.

7 Q. When did you start your consulting work with  
8 Womble Carlyle?

9 A. Oh, end of September, October.

10 Q. Did you have a contract with Womble Carlyle?

11 A. For a couple of years I did.

12 Q. Okay. So you had a specific consulting  
13 arrangement with Womble Carlyle; correct?

14 A. That's right.

15 Q. How much were you paid per hour under that  
16 agreement?

17 A. I don't -- is that any of your business?

18 Q. Yes, it is, sir.

19 A. Why?

20 Q. I'm entitled to know what kind of compensation  
21 you received from the Womble Carlyle law firm.

22 MR. BLANCATO: What's the relevance of it?

23 Q. I assume it was paid by R.J. Reynolds. Correct?

24 A. No, it was not. It was paid by Womble Carlyle.

25 Q. And Womble Carlyle did not bill that back to

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1 R.J. Reynolds?

2 A. I have no idea how they worked things.

3 Q. Were you working on R.J. Reynolds matters, sir?

4 A. No, I was working on --

5 MR. BLANCATO: Well wait, wait, wait. This  
6 is -- he was working for a law firm, and what he was  
7 working on may be privileged.

8 MR. O'FALLON: What he's working on may be  
9 privileged, but who's paying him is not privileged  
10 and what he was being paid is not privileged.

11 Q. So what were you being paid?

12 A. \$120 an hour.

13 Q. And do you know whether or not Womble Carlyle  
14 then billed the amounts they paid to you back to R.J.  
15 Reynolds?

16 A. I have no idea.

17 Q. Did you get other -- any other benefits from  
18 Womble Carlyle other than your \$120-per-hour fee?

19 A. No.

20 Q. And how long did you do consulting work for  
21 Womble Carlyle? You said you started about September  
22 of 1987. Till when?

23 A. Till now.

24 Q. So at the current time, you are still doing  
25 consulting work for Womble Carlyle; correct?

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1 A. That's right.

2 Q. Are you still being paid \$120 per hour?

3 A. No, I'm not.

4 Q. What's your current rate?

5 A. 140. And I do not have a contract anymore.

6 Q. Well do you have an oral understanding with  
7 them?

8 A. I guess you'd say it's oral.

9 Q. Okay. Well is it written?

10 A. No.

11 Q. There's nothing in writing anymore?

12 A. No.

13 Q. When's the last written contract or agreement  
14 you had with Womble Carlyle?

15 A. About 1990, somewhere around there. I'm not  
16 sure. I forgot. It's been years.

17 Q. Do you consult with Womble -- Womble Carlyle  
18 concerning certain, specific pieces of litigation?

19 A. Yes, this one.

20 Q. Okay. So you're currently consulting with  
21 Womble Carlyle for the Minnesota litigation;  
22 correct?

23 A. That's right.

24 Q. And how long have you been a consultant to  
25 Womble Carlyle for the Minnesota litigation?

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1 A. Well, I forget when it was brought up. It  
2 hasn't been too long, three or four months maybe.

3 Q. When were you first approached about consulting  
4 on the Minnesota litigation?

5 A. I think three or four months ago maybe. I've  
6 forgotten the exact time.

7 Q. Was that about the same time that you first  
8 learned that Minnesota had asked to have your  
9 deposition taken in this litigation?

10 A. I guess that's when I heard, yeah.

11 Q. And so that's the time when Womble Carlyle  
12 contacted you and also asked you whether you would  
13 consult in this litigation; correct?

14 A. Yes, I guess that's it.

15 Q. And you understand that Womble Carlyle  
16 represents R.J. Reynolds in this litigation;  
17 correct?

18 A. That's right.

19 Q. Do you know whether Womble Carlyle is billing  
20 the amounts that it pays to you to R.J. Reynolds  
21 Tobacco?

22 A. I have no idea.

23 Q. Have you ever asked?

24 A. No.

25 Q. Are you currently consulting in any other pieces

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1 of litigation throughout the country for Womble  
2 Carlyle?

3 A. Arch case, is that part of this also?

4 MR. McDERMOTT: Let -- let's take a break  
5 here. Let me consult with counsel for Dr. Rodgman.

6 MR. LEE: Why do you need a break?

7 MR. McDERMOTT: I need to consult with  
8 counsel for Dr. Rodgman.

9 MR. LEE: The man's answering questions.

10 MR. McDERMOTT: I understand. I need a  
11 break. I need to talk with counsel for Dr. Rodgman.

12 MR. BLANCATO: It will just be a minute.

13 THE REPORTER: Off the record, please.

14 (Recess taken.)

15 MR. BLANCATO: I think Dr. Rodgman was a  
16 little confused about his role in this case versus  
17 other things he has done with Womble Carlyle, and  
18 it's been my understanding before we came in here  
19 today that Dr. Rodgman is simply a witness in these  
20 cases and has not consulted in the sense that I think  
21 lawyers are familiar with consulting witnesses. And  
22 you may want to clarify that point on the record.

23 BY MR. O'FALLON:

24 Q. Dr. Rodgman, how many hours have you billed  
25 Womble Carlyle in the last several months?

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1 A. For January and February, I think it was about  
2 70, something around there.

3 Q. Okay. How about for March?

4 A. I haven't billed them anything for March or  
5 April or May.

6 Q. And nothing for June?

7 A. Nothing for June.

8 Q. Okay. You don't intend to bill Womble Carlyle  
9 for the time that you've spent preparing for the  
10 deposition that you're here at today?

11 A. I have to find out about it. I thought I would,  
12 but I -- maybe I won't.

13 Q. Well is that due to the fact that you've now had  
14 discussions with counsel off the record and they've  
15 indicated that maybe that's not going to happen?

16 A. Well I think there's --

17 MR. McDERMOTT: Hang on, whoa, whoa, whoa,  
18 whoa.

19 MR. BLANCATO: Wait. His discussions with  
20 me are not appropriate for this.

21 MR. O'FALLON: Well it appears that you've  
22 altered his testimony, sir, so we're going to talk  
23 about it for a second, if you don't mind. His  
24 testimony previously was that he's consulting in this  
25 case.

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1 MR. BLANCATO: Well --

2 MR. O'FALLON: No. His testimony is that  
3 he's consulting.

4 BY MR. O'FALLON:

5 Q. Did you have an understanding before you came in  
6 this room today that you'd be paid \$140 an hour for  
7 your time?

8 MR. BLANCATO: Let me object to the form.

9 If you will define what you mean by consulting --

10 MR. O'FALLON: Under our -- under our  
11 Minnesota rules and under the rules that govern this  
12 deposition, you're entitled to say the word  
13 "deposition, form."

14 MR. BLANCATO: Okay.

15 MR. O'FALLON: There are no speaking  
16 objections.

17 MR. BLANCATO: We're in North Carolina.

18 MR. O'FALLON: And if you want, we'll go  
19 right to the Minnesota court.

20 MR. BLANCATO: I'm not subject to Minnesota  
21 jurisdiction. I'm from North Carolina.

22 MR. O'FALLON: R.J. Reynolds, what's your  
23 position going to be on this issue?

24 MR. McDERMOTT: Hang on just a second.

25 Under the Minnesota order, when there are questions

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1 of privilege, you can do more than simply object to  
2 form. I --

3 MR. O'FALLON: He didn't make a privilege  
4 objection. He made a form objection.

5 MR. McDERMOTT: I think Mr. Blancato was  
6 raising questions of privilege, if I understood him  
7 correctly. You were inquiring into conversations  
8 Dr. Rodgman just had with counsel, his personal  
9 counsel. I think that is proper for Mr. Blancato to  
10 object. I'm not sure what the nature of the dispute  
11 is beyond that. If you've got some specific  
12 questions that don't raise questions --

13 MR. O'FALLON: I just --

14 MR. McDERMOTT: -- that don't deal with  
15 privilege matters that you want to explore, ask your  
16 question; we'll interpose objections; Mr. Blancato  
17 may have a privilege objection; others of us may have  
18 other objections. But --

19 MR. O'FALLON: Answer my --

20 MR. McDERMOTT: -- we can proceed.

21 MR. O'FALLON: Answer my original  
22 question. What is R.J. Reynolds' position?

23 MR. McDERMOTT: On what?

24 MR. O'FALLON: On whether or not the  
25 Minnesota orders govern this deposition.

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1                   MR. McDERMOTT: The Minnesota orders govern  
2 the deposition as far as the parties subject to the  
3 Minnesota order are concerned.

4                   MR. O'FALLON: So is R.J. Reynolds --

5                   MR. McDERMOTT: With respect to Dr. Rodgman  
6 and his counsel, they have signed an order issued by  
7 the North Carolina courts, and we do not control  
8 them. I suggest, however, that we proceed with the  
9 deposition, that you pose your questions, and if we  
10 have a specific controversy, we can address it. Do  
11 you have a question pending as to which you were  
12 seeking my advice?

13                  MR. O'FALLON: I asked you for an answer to  
14 my question, and my question, sir --

15                  MR. McDERMOTT: I'm not under oath and I'm  
16 not being deposed. Do you have a question to the  
17 witness that you want?

18                  MR. O'FALLON: I made a question a long  
19 time ago. That's how we got into this. If you'd had  
20 listened to the question at that time, maybe you'd  
21 have had a more cogent objection.

22 BY MR. O'FALLON:

23 Q. Dr. Rodgman, was it your understanding that at  
24 the time you entered this room here today that you  
25 would be paid \$140 an hour by Womble Carlyle?

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1 A. No, it was not my understanding.

2 Q. Was it your intention when you entered this room  
3 here today to bill Womble Carlyle for your time?

4 A. I would probably have asked which parts of my  
5 time over the last couple of months were billable.

6 Q. What was your understanding as to what part of  
7 your times were billable over the last several  
8 months?

9 A. Well I knew some of the topics I had been  
10 working on were billable. I wasn't sure about all  
11 this.

12 Q. Did you have an expectation as to whether this,  
13 referring to this deposition and the preparation you  
14 did for this deposition, would be paid?

15 A. I really hadn't thought about it.

16 Q. What did you do in preparation for your  
17 deposition here today?

18 A. I looked over some documents that were sent by  
19 somebody to this place.

20 Q. Do you know who sent those documents?

21 A. No, I really don't know who sent them.

22 Q. And when you say they were sent by somebody to  
23 this place, are you referring to the Womble Carlyle  
24 law offices that we're at here today?

25 A. Yeah.

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1 Q. Okay. So documents were sent to the Womble  
2 Carlyle office and you've looked at those documents?

3 A. Yeah.

4 Q. Do you know approximately how many documents  
5 you've looked at?

6 A. No, I really don't. A stack about that high.

7 Q. Okay. When did you first start looking at those  
8 documents?

9 A. They didn't get here till Friday.

10 MR. McDERMOTT: So the record is clear,  
11 Counsel, the documents which you designated were made  
12 available to Dr. Rodgman and his counsel to review.

13 MR. O'FALLON: Okay.

14 Q. Were all the documents that I designated made  
15 available to you, Dr. Rodgman?

16 A. Well the ones that were sent.

17 Q. Were any non-RJR documents made available to  
18 you?

19 A. Yes.

20 Q. And when were those documents made available to  
21 you?

22 A. At the same time.

23 Q. Okay. Did those include documents from British  
24 American Tobacco?

25 A. I think there was one, two.

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1 Q. Did some of those documents from British  
2 American Tobacco include documents that you had  
3 written concerning Freon?

4 A. Yes, a document.

5 Q. Now it's my understanding that you didn't sign  
6 this protective order until when? Was that done  
7 today?

8 A. The North Carolina one?

9 Q. Well did you ever sign the Minnesota protective  
10 order other than the protective order that was  
11 attached to the --

12 A. I signed something this morning.

13 Q. Right. That was -- that was the Minnesota

14 protective order entered here in North Carolina.  
15 Prior to that time, had you ever signed any other  
16 protective order?

17 A. Not that I recall.

18 Q. So you've looked at documents from other  
19 defendants in the Minnesota litigation without having  
20 signed a protective order; correct?

21 MR. McDERMOTT: So the record is clear,  
22 Counsel, after agreement was reached but before the  
23 order was entered in North Carolina court yesterday,  
24 Dr. Rodgman was shown the copies of the other  
25 defendants' documents with the expectation he would

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1 sign the order that day or this morning, depending  
2 upon logistics. The terms of the order were known to  
3 him.

4 Q. My understanding is and my statement is correct,  
5 you were shown confidential documents prior to  
6 signing a protective order; correct?

7 A. I signed the protective order this morning.

8 Q. Right. So you saw the documents, the  
9 confidential documents, prior to that time; correct?

10 A. Whenever they arrived, I started looking at  
11 them.

12 Q. And your testimony is they arrived sometime last  
13 Friday?

14 A. I guess it was Friday.

15 MR. O'FALLON: Another gentleman has  
16 entered the room. Could you please state your  
17 appearance.

18 MR. ZIRLIN: Sure. It's Harry Zirlin from  
19 Debevoise & Plimpton. I represent The Council for  
20 Tobacco Research.

21 MR. O'FALLON: Have you signed the  
22 Minnesota protective order?

23 MR. ZIRLIN: Not yet.

24 MR. O'FALLON: Then you can't sit here.  
25 Let's go off the record while he leaves.

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C O N F I D E N T I A L

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1                   THE REPORTER: Off the record, please.

2                   (Discussion off the record.)

3 BY MR. O'FALLON:

4 Q. Other than looking at documents, what else have  
5 you done in preparation for today's deposition?

6 A. I brought in my diaries.

7 Q. Have you had any meetings with anybody?

8 A. Oh, yes.

9 Q. Okay. How many meetings have you had?

10 A. Since when?

11 Q. At any point in time concerning today's  
12 deposition.

13 A. Oh, probably six or seven.

14 Q. When did you have your first meeting concerning  
15 today's deposition?

16 A. I met a couple of times in May before I went on  
17 vacation and then four or five times since.

18 Q. Did you say a couple of times in May?

19 A. Yeah.

20 Q. Okay.

21 A. Because I was going on vacation.

22 Q. Who did you meet with on the couple of times in  
23 May?

24 A. Mr. Blancato, Mr. McDermott.

25 Q. Anybody else?

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1 A. Martin Holton of Womble Carlyle.

2 Q. Did you review any documents at that time, the  
3 two meetings before you went on vacation?

4 A. I reviewed my calendars, brought them in, looked  
5 at them.

6 Q. Are those those diaries that we've been talking  
7 about earlier?

8 A. Yeah.

9 Q. Did you review anything else?

10 A. Most of the document examination was in the last  
11 few days.

12 Q. Did you review any videotapes?

13 A. No.

14 Q. Approximately how long did each of the meetings  
15 last that you had before you went on vacation?

16 A. A couple of hours.

17 I think Mr. Crist was at one of those meetings.

18 Q. And who is that?

19 A. The gentleman that just stepped out.

20 Q. Okay.

21 A. Now that I think about it.

22 Q. Okay. And then when did you come back from  
23 vacation?

24 A. June the 1st.

25 Q. And how many meetings have you had with anybody

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1 concerning this deposition since that time?

2 A. Oh, five.

3 Q. And who has been involved in those meetings?

4 A. Mr. -- Mr. McDermott and Mr. Holton and

5 Mr. Blancato.

6 Q. Approximately how much time have those meetings

7 taken in total? About how much time have you met?

8 A. Well in a general sense, you say "meetings,"  
9 the Friday, Monday, Tuesday and Wednesday when I was  
10 going through those documents, and I guess five or  
11 six hours each day.

12 Q. Have you talked to anybody else other than  
13 attorneys about this deposition?

14 A. As to its substance?

15 Q. Or even --

16 A. I told my wife where I was going.

17 Q. Well other than your wife?

18 A. Well -- well I mean when you say --

19 Q. Other than your wife.

20 A. Well my son.

21 Q. Other than your immediate family, have you  
22 talked to anybody else?

23 A. No.

24 Q. Do you keep in touch with any of the people that  
25 you used to work with at RJR, such as Dr. Teague?

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1 A. I haven't seen Dr. Teague in years.

2 Q. How about Dr. Senkus?

3 A. I see him occasionally.

4 Q. Have you ever talked to him about this  
5 deposition?

6 A. No.

7 Q. How about Dr. Colby? Do you ever keep in any  
8 contact with him?

9 A. Well he's in New York. He occasionally phones;  
10 we chat. He has -- his wife died a little while ago,  
11 talk about that.

12 Q. Have you had --

13 A. He hasn't been well, talk about his health.

14 He's 84 years old.

15 Q. Have you had any opportunity to talk with  
16 Dr. Colby about either his deposition or your  
17 deposition?

18 A. No. No.

19 Q. Have you or Dr. Colby talked at all about the  
20 cigarette litigation in general?

21 A. He took my place in 1967 and what I was doing  
22 for the law department.

23 Q. So he was your successor in 1967?

24 A. Well he was a manager and I wasn't, so I don't  
25 know whether you'd call him my successor.

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1 Q. He took your position? He --

2 A. He took the activities.

3 Q. Okay.

4 A. He acquired the activities I was doing.

5 Q. I'd just like to go back for a minute and -- and  
6 clarify the benefits you've received from RJR or are  
7 receiving, and -- and I'll exclude when you took the  
8 incentive retirement up until I believe it was March  
9 of 1989, you were on full salary for RJR?

10 A. Full salary, full benefits.

11 Q. What did you receive from RJR after that time?

12 A. My retirement pay.

13 Q. Any other benefits?

14 A. Well they have a very extensive insurance  
15 program, health insurance and dental insurance  
16 program, that they pay to retirees, to all retirees.

17 Q. Any other benefits that you get out of that?

18 A. No, not that I can think of.

19 Q. Did you have any ongoing stock incentive plans,  
20 anything like that?

21 A. I cashed all my stock in on the big buyout. I  
22 do not own any stock in R.J. Reynolds.

23 Q. Have you ever received any benefits such as  
24 office space or access to RJR facilities?

25 A. Yeah, I have a working agreement or an agreement

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1 with RJR R&D folk that I have permission to use the  
2 R&D library anytime I want. I've had that ever since  
3 I retired.

4 Q. Have you had any --

5 Has RJR either provided for you or made  
6 available to you any office space?

7 A. No.

8 Q. How about secretarial services?

9 A. No.

10 Q. As you sit here today, are you still receiving  
11 your pension benefits, including your insurance and  
12 dental and retirement pay?

13 A. I hope so.

14 Q. And you still have the access to the RJR  
15 library; correct?

16 A. That's right.

17 Q. Do you have --

18 Do you receive any other benefits from RJR as  
19 you sit here today that --

20 A. No.

21 Q. Do you have any access to office space through  
22 your informal -- informal consulting arrangement with  
23 Womble Carlyle?

24 A. No, I don't.

25 Q. Is the nature of your agreement with Womble

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1 Carlyle such that it's up to them to choose to call  
2 on you from time to time?

3 A. Yes.

4 Q. You don't approach them?

5 A. No.

6 Q. Were you ever asked by R.J. Reynolds to appear  
7 voluntarily for today's deposition?

8 A. No.

9 Q. If you were asked to appear -- appear  
10 voluntarily by R.J. Reynolds, would you have?

11 A. Yes.

12 MR. McDERMOTT: Object, calls for  
13 speculation.

14 MR. BLANCATO: Objection.

15 Q. Are you playing --

16 Are you paying for Mr. Blancato's attorney's  
17 fees to represent you here today?

18 A. No, I am not.

19 Q. Do you know who's paying those?

20 A. No, I don't.

21 Q. How long has Mr. Blancato represented you?

22 A. Oh, a month, six weeks, whenever this thing came  
23 up, this deposition.

24 Q. Did you choose Mr. Blancato or was he suggested  
25 to you by R.J. Reynolds?

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1 MR. BLANCATO: Objection.

2 MR. McDERMOTT: Object to the form of the  
3 question, assumes facts not in evidence.

4 Q. You can answer.

5 A. No, I did not choose Mr. Blancato.

6 Q. Who did?

7 A. I believe he was -- used to work here at Womble  
8 Carlyle, and I believe Mark Holton asked him to do it  
9 after my son declined to serve me, to be my  
10 attorney.

11 Q. Dr. Rodgman, I'd like to go back over briefly  
12 your rather long career at R.J. Reynolds, and I'd  
13 like to just start with your educational background.

14 Where did you go to college?

15 A. I didn't go to college. I went to a  
16 university.

17 Q. I'm sorry. Which university did you go to?

18 A. I went to the University of Toronto in Toronto,  
19 Ontario, Canada.

20 Q. And what degree did you obtain from the  
21 University of Toronto?

22 A. I got a bachelor of arts in honors chemistry in  
23 1949, a master's in organic chemistry in 1951 and a  
24 Ph.D. in organic chemistry in 1953.

25 Q. And what was your first job after you received

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1 your doctorate in 1953?

2 A. My first job was before I had a doctorate.

3 Q. Okay. What was that?

4 A. I was a research associate my third summer in my  
5 bachelor's at Department of Medical Research at --  
6 the Banting and Best Department of Medical Research  
7 at the University of Toronto.

8 Q. And how long did you hold that position?

9 A. For seven years. It was -- I worked in the  
10 summers and then evenings, weekends while I was doing  
11 my graduate work. Then I had a year and a half or so  
12 when I finished my Ph.D., and then I came to  
13 Reynolds.

14 Q. Okay. And what was your first position at  
15 Reynolds?

16 A. Senior research chemist.

17 Q. And what year --

18 Do you remember your exact hire date?

19 A. June the 23rd, 1954.

20 Q. I had a feeling you'd remember that.

21 Who did you report to when you took your first  
22 job as a senior research chemist?

23 A. Dr. Murray Senkus.

24 Q. And what was his title at that time?

25 A. Manager of the chemical research division.

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1 Q. What type of work did you do in the chemical  
2 research division in 1954?

3 A. My first assignment was to synthesize 20 some --  
4 well as many as possible compounds that had potential  
5 use as flavorants. They were a class of compound  
6 which I'm sure you know about called phenols.

7 Q. And how long did that project last?

8 A. Three or four months, and the -- I pointed out  
9 to management because of my background at the  
10 University of Toronto, Banting and Best Department of  
11 Medical Research, that there might be a problem with  
12 phenols.

13 Q. And what would that problem be, sir?

14 A. When phenols are heated, they turn -- can  
15 possibly produce quinones, q-u-i-n-o-n-e-s.

16 Q. And what are those?

17 A. They're a degradation product of phenol that  
18 occur on heating sometimes.

19 Q. Are they biologically active?

20 A. Yes, and that was my point with management, that  
21 Takezawa in Japan had shown several of these were  
22 tumorigenic to mice.

23 Q. And what was management's response to that?

24 A. Well when I pointed that out and pointed out  
25 that a man called Boutwell, B-o-u-t-w-e-l-l, had also

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1 shown that some phenols could possibly be promoters,  
2 management said let's -- we never tested those 23  
3 phenols that I prepared.

4 Q. Okay. So the 23 phenols that you were working  
5 on in 1954 were never actually used as flavorants in  
6 R.J. Reynolds Tobacco products?

7 A. Right, and management took my word, a guy that  
8 had been there three months, four months.

9 Q. Are phenols a naturally occurring part of  
10 cigarette smoke?

11 A. Yes, if cigarette smoke can be termed  
12 "natural."

13 Q. We'll be talking about that subject later on.

14 A. I imagine we will.

15 Q. But cigarette -- phenols do occur in cigarette  
16 smoke; correct?

17 A. Yes.

18 Q. And phenols are known to be biologically  
19 active?

20 A. Under some conditions.

21 Q. Certain phenols are known to be cancer-producing  
22 agents; correct?

23 A. Wrong.

24 Q. They're known to be cancer-producing agents in  
25 laboratory animals?

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1 A. They're usually classified as promoters.

2 Q. Okay. Cancer -- cancer promoters?

3 A. No. They promote the activity of a tumor.

4 Q. Okay. So if a tumor is otherwise present, they  
5 will cause it to grow faster?

6 A. No, they make a compound that might induce a  
7 tumor act faster.

8 Q. Okay. What was your next project after that?

9 A. Tobacco smoke.

10 Q. And what was your --

11 What did you do concerning tobacco smoke?

12 A. Well when I finished the -- or we terminated the  
13 phenol project, I was asked what I'd like to work on  
14 and I said tobacco smoke.

15 Q. And when they said as far as working on it, what  
16 did you mean by that?

17 A. Well if you look at the literature for prior to  
18 1954, there were only about 90 compounds known in  
19 tobacco smoke and most of those were described  
20 incorrectly. And I felt with all the controversy  
21 that was going on, we should know something about  
22 tobacco smoke.

23 Q. So your job was to set forth to characterize the  
24 various compounds in tobacco smoke?

25 A. That's right.

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1 Q. And how long did that work take you?

2 A. My actual participation in the laboratory was  
3 until 1965, '66 when I got promoted to a section  
4 head; and as supervisor of that work, in one degree  
5 or another, up until I retired.

6 Q. So from 1954 after you finished the project on  
7 phenols until 1965, you were actively working in  
8 identifying the components of cigarette smoke;  
9 correct?

10 A. And I have numerous publications to show that.

11 Q. Who did you report to during this time period,  
12 1954 to 1965?

13 A. Well originally I said it was Dr. Senkus, and  
14 Dr. Senkus got promoted to assistant director of  
15 research and Dr. Teague took his place. Then in 1965  
16 or somewhere around there Dr. Willard Bright was  
17 hired as vice president of R&D, and Dr. Senkus became  
18 director of research, Dr. Teague became assistant  
19 director of research and Dr. Anders Laurene became  
20 manager of the chemical division.

21 Q. So at that point were you reporting to  
22 Dr. Laurene?

23 A. Well sequentially I reported first to Senkus,  
24 then to Teague, then to Laurene.

25 Q. Okay. Now during this time period, were you --

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1 and when I'm referring to the time period, let's talk  
2 quickly about 1954 to 1965. Did you remain a senior  
3 research chemist?

4 A. Yes.

5 Q. During this time period from 1954 to 1965 when  
6 you were characterizing the components of smoke, who  
7 was directing your work?

8 A. I was.

9 Q. So attorneys weren't telling you what to do?

10 A. No.

11 Q. Were you doing this work from 1954 to 1965 for  
12 the purposes of litigation?

13 A. No.

14 Q. Were you directly reporting the results of your  
15 research only to an attorney?

16 A. No.

17 Q. Were you reporting the results of your research  
18 to an attorney at all?

19 A. No.

20 Q. Were attorneys routinely copied on your reports  
21 or your research?

22 A. No.

23 Q. During this time, 1954 to 1965, were you doing  
24 some other separate work for attorneys?

25 A. Yes.

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1 Q. What work was that?

2 MR. McDERMOTT: Let me interpose a -- a  
3 statement here and a caution. I'll let Dr. Rodgman  
4 describe very generally what he was doing, but the  
5 precise tasks are obviously privileged and we do  
6 object to that.

7 Dr. Rodgman, you can give a very generic  
8 description of the activities.

9 MR. O'FALLON: And just let me make my  
10 statement for the record. We're actively seeking to  
11 challenge that privilege in Minnesota.

12 MR. McDERMOTT: I understand, and at such  
13 time as the privilege is breached, if at all --

14 MR. O'FALLON: I'm making my record, sir.

15 MR. McDERMOTT: I understand.

16 BY MR. O'FALLON:

17 Q. What work were you doing on behalf of attorneys  
18 during that time period?

19 A. I was collecting literature pertinent to the  
20 smoking-and-health issue, preparing abstracts for  
21 them, sending them on to them.

22 Q. So during the time period from 1954 to 1965,  
23 your work was basically in two parts: On the one  
24 hand, you were doing laboratory work where you were  
25 characterizing components in tobacco smoke and

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1 recording your results and writing reports on that;  
2 correct?

3 A. That wasn't all I was doing in the laboratory.

4 Q. Okay. What else were you doing?

5 A. We were looking at the ways to control the  
6 composition of cigarette smoke.

7 Q. Let me see if I can come at this a little bit  
8 different way.

9 The only work you were doing for attorneys from  
10 1954 to 1965 was collecting literature, analyzing it  
11 and summarizing it for the attorneys; correct?

12 A. That was, I guess you'd say, an educational  
13 process.

14 Q. But that's --

15 But that work, that educational work where you  
16 were taking outside research, looking at it,  
17 analyzing it and then telling the lawyers what it  
18 meant, --

19 A. Uh-huh.

20 Q. -- that was the only work you were doing for  
21 lawyers during this time period, 1954 to 1965?

22 A. That's right.

23 Q. All the rest of your laboratory work was being  
24 done independent of the lawyers; correct?

25 A. That's right.

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1 Q. Okay. So all your work as to characterizing the  
2 components of smoke and working for ways to control  
3 the composition of cigarette smoke, that was all  
4 non-attorney-related work; correct?

5 A. That's right.

6 Q. Is there any other work that you were doing in  
7 the 1954-to-1965 period?

8 A. No.

9 Q. During that period, that 1954-to-1965 period,  
10 how many people did you have working for you?

11 A. Three.

12 Q. And who were they?

13 A. Lawrence C. Cook; Max A. Wagoner, a technician;  
14 Bruce W. Woosley, a technician. Lawrence Cook was a  
15 bachelor's degree from Tennessee.

16 Q. And did --

17 Dr. Senkus and then Dr. Teague, were they also  
18 active on a -- on a laboratory scale, or did they do  
19 mostly management work?

20 A. Well Dr. Teague, until he was promoted, took  
21 Dr. Senkus's place as manager of the chemical  
22 division, was doing laboratory work. Then when he  
23 became the manager of the chemical division, he  
24 stopped. Senkus never did laboratory work at -- he  
25 was always a manager and then became director of

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1 research and so on.

2 Q. In 1965 you were promoted?

3 A. Yeah.

4 Q. And what was your title in 1965?

5 A. Head of the tobacco smoke section. When  
6 Dr. Bright came in '65, he implemented categories,  
7 section heads, group leaders and so on, because the  
8 staff was getting so large. Before there -- it  
9 wasn't that big.

10 Q. And how many people worked for you in the  
11 tobacco smoke section?

12 A. About 20.

13 Q. What were your duties and responsibilities in  
14 the position as head of tobacco smoke section?

15 A. To run the projects on tobacco smoke  
16 identification, tobacco identification and tobacco  
17 smoke delivery and composition control.

18 Q. Did you continue to do bench-level work as head  
19 of the tobacco smoke section or were you now --

20 A. I did for a little while, until I was ordered  
21 not to.

22 Q. Okay. When did you stop your bench work?

23 A. About six months after becoming a section head.

24 Q. How long did you remain head of tobacco smoke  
25 section?

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1 A. Let's see, '65. Well there's a glitch in  
2 there. Really till May or March 1973.

3 Q. Okay. Why don't you tell me about the glitch.

4 A. Well, and Dr. Laurene was attending or going to  
5 be sent to a management course at the University of  
6 North Carolina, Chapel Hill, which was about six  
7 months, and then when he came back, he was put on an  
8 orientation to development department and  
9 manufacturing, so on, so he was going to be out of  
10 the research building for about a year, so I filled  
11 in as active manager, acting manager, of the chemical  
12 research division. And then when he came back, I  
13 went back to my section-head job.

14 Q. Okay. And what year was -- approximately what  
15 year was it that you were the acting manager of the  
16 chemical research division?

17 A. Well '73.

18 Q. Okay.

19 A. And then in '74 I went back to being the section  
20 head, '75 I was promoted to manager of the analytical  
21 research division.

22 Q. Okay. And what were your duties and  
23 responsibilities in that job?

24 A. To run the division.

25 Q. What --

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1           What did that involve at that time?

2 A.     Well it was --

3 Q.     What was in the analytical division?

4 A.     The analytical research division was where new  
5 analytical procedures were developed or improved.

6 They also did all the analysis of products or test  
7 cigarettes, tar, nicotine, so on, and analyzed  
8 tobacco that was purchased when the -- from the  
9 markets and that kind of thing.

10 Q.    And so you would have been ultimately  
11 responsible for the projects that were ongoing in the  
12 analytical research division?

13 A.    That's right. And in fact, shortly before that  
14 Mr. Cundiff had been awarded a very famous prize for  
15 his contributions to analytical chemistry for tobacco  
16 and smoke.

17 Q.    How big was the analytical research division in  
18 1975 when you took it over?

19 A.    Probably 45 people, counting technicians,  
20 clerical and staff.

21 Q.    Now it's my understanding that your other job,  
22 your other duty; that is, the -- the gathering and  
23 analysis of outside research for the lawyers, that  
24 that ended in 1967?

25 A.    Yeah. For a short period after promotion, I

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1 worked a little with Dr. Colby, because he took that  
2 task over, getting him familiar with my filing  
3 system --

4 Q. Okay.

5 A. -- and the task and what -- one young lady was  
6 turned over to Dr. Colby, and by '67 I was pretty  
7 well through with it.

8 Q. Did Dr. Colby handle that task from 1967 up  
9 until the time that he retired, whenever that was?

10 A. Yes.

11 MR. BLANCATO: Dr. Rodgman, would you like  
12 to take a break now?

13 THE WITNESS: Fine.

14 MR. BLANCATO: Okay.

15 MR. O'FALLON: Let me just ask a couple  
16 more quick questions. We'll kind of round up this.

17 MR. BLANCATO: Okay.

18 MR. O'FALLON: Let me get -- let me get you  
19 all the way up to 1975.

20 BY MR. O'FALLON:

21 Q. From 1967 to 1975, none of the work you were  
22 doing was being directed by lawyers; correct?

23 A. That's right.

24 Q. And you weren't reporting directly to lawyers  
25 from 1967 to 1975; correct?

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1 A. Right. To make the record clear, I never  
2 reported to a lawyer in 34 years at R.J. Reynolds.

3 Q. Okay. How did --

4 How would you describe your relationship with  
5 the lawyers?

6 A. I was providing them with information, the  
7 educational-type thing, and on occasion there would  
8 be questions raised about something and I'd answer  
9 them.

10 Q. Okay. During that time period, from 1954 to  
11 1967 when you were looking at this research, were you  
12 ever specifically involved in any pieces of  
13 litigation?

14 A. Yes.

15 Q. What, general smoking-and-health pieces of  
16 litigation?

17 A. Yes.

18 Q. What role did you serve in those pieces of  
19 litigation?

20 A. I was at -- provided information and kept the  
21 file on all the papers that -- published papers that  
22 were used in the Lartigue case.

23 Q. In the what case?

24 A. The Lartigue case --

25 Q. Okay.

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1 A. -- in New Orleans.

2 Q. And was that an individual smoker case?

3 A. Yes.

4 Q. Prior to today, have you ever had your  
5 deposition taken?

6 A. Yes.

7 Q. When did you have your deposition taken?

8 A. It wasn't a smoking-and-health case.

9 Q. What kind of a --

10 A. It was a controversy between Reynolds and  
11 American Tobacco Company about American's using our  
12 expansion process.

13 Q. The G13 process?

14 A. That's right.

15 Q. What year was that litigation?

16 A. Oh, boy, maybe '73, '74. I've forgotten the  
17 exact date. It was over in Greensboro.

18 Q. During the time that you were doing your  
19 research work at R.J. Reynolds, were you vaguely  
20 familiar of what the other companies were doing as  
21 far as research?

22 A. Well, I don't know whether you're familiar with  
23 two organizations called Council for -- not Council  
24 for Tobacco Research -- Tobacco Chemists Research  
25 Conference, which was initiated in 1947, and that

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1 primarily is -- involves domestic tobacco companies  
2 and other -- and other institutions, Sloan-Kettering  
3 Institute, American Health Foundation, company  
4 suppliers, tobacco supply companies. Then there's an  
5 international one called CORESTA, which is stationed  
6 in -- centered in France, Paris, and that's an  
7 international one, and I was -- used to attend  
8 those. I was involved in the committees and so on  
9 and so forth, and of course you would hear papers  
10 from people from B&W, Lorillard, Philip Morris, U.S.  
11 Tobacco, Imperial, B&W, L&M.

12 Q. How about American? To the best of your  
13 knowledge, did American ever do any research in the  
14 1960s or 1970s?

15 A. I assume so.

16 Q. Do you know whether they ever had any animal  
17 research facilities at American?

18 A. No, I don't know.

19 Q. Okay. Do you know what kind of research they  
20 were doing at American?

21 A. Well they were -- their presentations were on  
22 smoke composition, tobacco composition. Gene Glock  
23 used to present papers, G-l-o-c-k, and publish.

24 In --

25 MR. BLANCATO: Be a good time to take a

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1 short break?

2 I'm sorry, finish your answer.

3 MR. O'FALLON: Let me just one follow-up

4 question.

5 A. In fact American came out with the first usable  
6 smoking machine in 1936 if you want to keep the  
7 record straight.

8 Q. I was specifically wondering about their  
9 research in the late '80s -- I mean the late '60s and  
10 the '70s. Do you know what kind of research American  
11 was doing in that period?

12 A. Well as I say, they were publishing, presenting  
13 things at these conferences on tobacco and tobacco  
14 smoke composition.

15 Q. Did you ever hear of a facility that American  
16 owned called Bermuda Hundred?

17 A. Never heard of it.

18 MR. O'FALLON: Okay. Why don't we take a  
19 break.

20 MR. BLANCATO: Thanks.

21 THE REPORTER: Off the record, please.

22 (Recess taken.)

23 BY MR. O'FALLON:

24 Q. Dr. Rodgman, how long did you remain, I believe  
25 it was, head or manager of the analytical research

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1 division?

2 A. One year.

3 Q. And what was your next position?

4 A. Director of research.

5 Q. And what were your responsibilities as director  
6 of research?

7 A. To run the department.

8 Q. How big was your department in 1976?

9 A. About 200, 225 people.

10 Q. Were you ultimately responsible for the approval  
11 of all projects that took place in research?

12 A. Yes.

13 Q. Would you receive copies of all reports that  
14 came out of research?

15 A. Yes, most of the formal -- all the formal  
16 reports came to me finally.

17 Q. Generally what other duties and responsibilities  
18 did you have as director of research?

19 A. Well directing the research, talking with the  
20 staff on proposals for the next year and years,  
21 working on budgets and making presentations to  
22 management to get the projects funded, approving  
23 publications, presentations and so on, so forth.

24 Q. Did you yourself get the opportunity to do any  
25 actual research during the time --

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1 A. No.

2 Q. -- you were director of research?

3 A. No.

4 Q. How long did you remain in the position director  
5 of research?

6 A. Till 1980.

7 Q. From 1976 to 1980 while you were director of  
8 research, were you working with any attorneys during  
9 that time period?

10 A. Only in the sense they might phone me and ask me  
11 something.

12 Q. The research reports done in R&D at that time  
13 weren't being routinely copied to the legal  
14 department?

15 A. No. With one possible exception.

16 Q. And what exception is that?

17 A. If something looked like it was -- had patent  
18 potential, it would be sent to the lawyer in charge  
19 of patent applications.

20 Q. Okay. So there could be research projects that  
21 you would get a lawyer involved in for purposes of  
22 protecting that intellectual property; correct?

23 A. Yes.

24 Q. But you weren't doing any smoking-and-health  
25 litigation during that time period, correct, 1976 to

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1 1980, you personally?

2 A. No.

3 Q. And you weren't assisting in that at that time;  
4 correct?

5 A. No.

6 Q. In 1980 what was your position?

7 A. I became director of fundamental research. We  
8 had a re -- total reorganization of R&D on October  
9 the 1st, 1980.

10 Q. Why was that?

11 A. It was getting pretty large, so we got --  
12 brought in an outsider who instead of having research  
13 and development split it into six parts because we  
14 were planning to expand our operations. So there was  
15 fundamental research, applied research, analytical  
16 research, process engineering, science information  
17 division and administration, six parts instead of  
18 two.

19 Q. Okay. What were the previous two parts?

20 A. Research and development.

21 Q. Oh, just -- okay. Let me just make sure I'm  
22 clear on this.

23 In 1976 you were director of research or  
24 direct --

25 A. Director of research.

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1 Q. Okay. And so there was also a director of  
2 development?

3 A. That's right.

4 Q. Okay. And who was the director of development  
5 in 1976?

6 A. Mr. R. H. Cundiff.

7 Q. Was there a fair amount of interaction between  
8 your two departments?

9 A. Oh, yes.

10 Q. Now when you became the director of fundamental  
11 research, what did your department do?

12 A. We continued on smoke composition work,  
13 mechanisms of smoke formation, and we implemented a  
14 new set of -- new type of research on biobehavioral  
15 research.

16 Q. What did that involve?

17 A. Determining how people smoked and so on.

18 Q. Before that time had Reynolds done any bio --  
19 biobehavioral research?

20 A. No.

21 Q. Other companies had done quite a bit of  
22 biobehavioral research, correct, especially Philip  
23 Morris?

24 A. I understand so.

25 Q. Is that part of the reason that R.J. Reynolds

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1 decided to undertake biobehavioral research?

2 A. Yes.

3 Q. In part the purpose of biobehavioral research  
4 was to determine how smokers satisfy themselves;  
5 correct?

6 A. How they smoke, frequency, puff volume, all of  
7 that stuff.

8 Q. And one of the purposes was to determine what  
9 motivated people to smoke certain products so you  
10 could aim products better at the consumers; correct?

11 A. That's right.

12 Q. How long did you remain the head of fundamental  
13 research?

14 A. Till I retired.

15 Q. And who took your position when you left?

16 A. Nobody.

17 Q. Is the department still in existence or was  
18 it --

19 A. No.

20 Q. Was it reorganized out of existence?

21 A. Right.

22 Q. Is that part of the reason you decided to take  
23 incentive retirement?

24 A. No.

25 Q. Do you know why it was reorganized out of

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1 existence?

2 A. I have no idea. I like to think they couldn't  
3 find somebody to do it properly.

4 Q. And you could be right.

5 A. One thing I might add, in the work going on in  
6 fundamental research, smoke, we also got into -- in a  
7 big way into environmental tobacco smoke.

8 Q. What's also known as secondhand smoke?

9 A. I guess.

10 Q. Did you guys ever use that term?

11 A. Never.

12 Q. You always stuck with "environmental tobacco  
13 smoke"?

14 A. Right, or "passive smoke."

15 Q. "Passive smoke," okay.

16 From 1980 to 1987 as the head of fundamental  
17 research, did you do work that was directed by  
18 lawyers?

19 A. No.

20 THE REPORTER: No?

21 THE WITNESS: No.

22 MR. BLANCATO: If you can, try to speak up  
23 so everyone can hear.

24 THE WITNESS: Okay.

25 Q. Did you do any work for lawyers at that time or

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1 at the request of lawyers, other than the Womble  
2 Carlyle work that we discussed?

3 A. Well there were -- I'm sure you are aware of the  
4 project called Premier.

5 Q. Sure.

6 A. Well there were meetings with lawyers about the  
7 patentability of various aspects of Premier.

8 Q. Okay. Were you actively involved in Premier?

9 A. No, I was not actively involved.

10 Q. Was Premier marketed before you retired?

11 A. I don't think it was. I think it was maybe  
12 around the time, but I -- I couldn't be sure of the  
13 exact date.

14 Q. I'm thinking somewhere in 1988, but I'm not sure  
15 if that's correct either.

16 Did your department do any work on the Premier  
17 project?

18 A. Some of my people did. When they were -- the  
19 group working on Premier got into some trouble, they  
20 always came and asked my folks.

21 Q. Premier in the start was called Project Alpha;  
22 is that right?

23 A. That was one -- yeah, right.

24 Q. But other than occasionally meeting with lawyers  
25 concerning Premier, did you do any other work for

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1 lawyers in that 1980-to-1987 time period as head of  
2 fundamental research?

3 A. I didn't do any specific work for them.

4 Q. You mentioned, I believe, that you consulted  
5 with some lawyers on the Barclay concerns.

6 A. That's right.

7 Q. And Barclay was a situation where Brown &  
8 Williamson was claiming that they were producing or  
9 capable of producing a cigarette that was 99 percent  
10 tar free; correct?

11 A. I -- I don't remember that phrase.

12 Q. In any event, the other manufacturer disputed  
13 Barclay's actual -- actual tar delivery; correct?

14 A. Yes, not -- I don't think it was a matter of  
15 that claim. It was the fact that it didn't deliver  
16 what they said it delivered.

17 Q. The Barclay cigarette basically cheated the FTC  
18 tests; correct?

19 MR. McDERMOTT: Object to the form of the  
20 question.

21 MR. ZIRLIN: I also object to the form of  
22 the question.

23 THE WITNESS: Pardon?

24 MR. O'FALLON: They're just stating their  
25 objections for the record.

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1                   MR. McDERMOTT: Let me interrupt here. Can  
2 we have an understanding that an objection by one is  
3 an objection by all of the other companies?

4                   MR. O'FALLON: That is my understanding.

5                   MR. CRIST: And that's for Arch as well?

6                   MR. McDERMOTT: For Arch and for Perry?

7                   MR. LEE: Arch is not objecting.

8                   MR. McDERMOTT: No, no, that an objection  
9 by one counsel will be deemed an objection for all.

10                  MR. LEE: Sure.

11                  MR. ZIRLIN: I'm sorry, I was not aware of  
12 that stipulation.

13                  MR. O'FALLON: There's a court order in  
14 Minnesota to that effect.

15                  MR. CRIST: We just wanted to make sure in  
16 all the other cases that have been noticed it's been  
17 taken care of.

18                  MR. O'FALLON: Sure.

19                  THE WITNESS: Would you repeat that,  
20 please.

21                  MR. O'FALLON: The question got lost in the  
22 objections. Yeah, let me just --

23 BY MR. O'FALLON:

24 Q. The Barclay cigarette basically cheated the FTC  
25 tables or tests; correct?

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1                   MR. McDERMOTT: Same objection.

2 A. I don't think you can say that.

3 Q. How would you --

4 A. When you -- when you run the FTC test on any  
5 cigarette, how can you cheat it? It runs the test.

6 It -- the problem was that the FTC number that was  
7 got in the analysis, which was done correctly, did  
8 not match what the smoker took in.

9 Q. So --

10 A. So you're not cheating the FTC test.

11 Q. It's just the FTC is inaccurate as any  
12 reflection of what the smoker's actually going to  
13 obtain; correct?

14 A. Well that had been true since 1965.

15 Q. Okay. So the FTC test has never been an  
16 accurate measure of the tar or nicotine that a smoker  
17 will receive; correct?

18 A. That's right.

19 Q. And the industry has known that since 1965;  
20 correct?

21 A. We told the FTC that in 1964. You've got to  
22 remember, sir, that test is not ours.

23 Q. Did you ever disclose to the consumers on any of  
24 your packages of cigarettes that the numbers that you  
25 are reporting on that package are not accurate as to

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1 what they themselves will receive?

2 MR. McDERMOTT: Object to the form of the  
3 question, calls for legal conclusions and  
4 speculation.

5 A. I don't think it ever appeared on a pack.

6 Q. So R.J. Reynolds, as far as you know, never  
7 stated on its packages where they did list the tar  
8 and nicotine content or in its advertising where it  
9 listed tar and nicotine content as measured by the  
10 FTC method that the FTC method had no bearing on what  
11 the smoker him or herself would actually receive as  
12 far as smoke composition?

13 MR. McDERMOTT: Object to the form of the  
14 question. The companies are obliged by law --

15 MR. O'FALLON: "Objection," sir, that's  
16 all. You're not -- you're not making a privileged  
17 objection. "Objection" is good.

18 MR. McDERMOTT: You're asking an unfair  
19 question.

20 A. All I know -- well I shouldn't say "all I  
21 know" -- about the FTC business is that on March the  
22 25th, 1965, the FTC said, "You will analyze this way,  
23 period."

24 Q. And what my question is is: Did R.J. Reynolds  
25 ever state in its advertising or on its cigarette

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1    packs or anyplace where FTC tar and nicotine numbers  
2    are listed that RJR's expert opinion was that those  
3    numbers did not reflect what the smoker would  
4    actually receive from the cigarettes that smoker  
5    smoked?

6    A.    Not in --

7                    MR. McDERMOTT: Object, compound.

8    A.    Not that I know of. They had presented all that  
9    to the FTC in 1963 and 1964, and the FTC ignored it.

10   Q.    The real development of what are called the  
11   low-tar and ultralow-tar cigarettes did not start  
12   until the '70s, did it?

13   A.    I believe one of the tobacco companies had a  
14   low-tar cigarette in the late '60s.

15   Q.    Okay. But it was really after the FTC imposed  
16   its tar and nicotine measurement requirements that  
17   the cigarette industry started to develop the, quote,  
18   unquote, "low-tar entries" into the market; correct?

19   A.    Well it was a gradual thing. If you look at the  
20   curve of over -- over time span, the decrease in tar  
21   delivery had started in 1954 and was accentuated in  
22   1957 when Dr. Wynder said if you drop the tar, you'll  
23   improve -- lessen the risks of smoking.

24   Q.    When did RJR first market a low-tar cigarette?

25                    MR. BLANCATO: Object to the form. You can

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1 answer.

2 A. Well let me phrase it this way: In 1953-'54,  
3 all the cigarettes delivered between 38 and 40  
4 milligrams of tar. Ten years later, they were down  
5 to the figure that Dr. Wynder said would be no  
6 problem. That wasn't far enough. In 1980 they were  
7 down another 40 percent. And all those advances were  
8 studied by R.J. Reynolds.

9 Q. R.J. Reynolds uses internally in its documents a  
10 category called ULT; correct? You're familiar with  
11 that term?

12 A. Ultralight.

13 Q. Okay. What does that mean in RJR parlance?

14 A. I'm not sure. I think it's something like less  
15 than 3 or 4 milligrams.

16 Q. Okay. Less than 3 or 4 milligrams of tar?

17 A. Right.

18 Q. As measured by the FTC method; correct?

19 A. Right.

20 Q. When did RJR first market a ULT cigarette that  
21 delivered less than 3 to 4 milligrams of tar as  
22 measured by the FTC?

23 A. It was the Now cigarette.

24 Q. And what year was that?

25 A. That was in the mid-'70s. I couldn't give you

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1 an exact date.

2 Q. And again when RJR put on the outside of its  
3 packages or on its advertising that this cigarette  
4 delivered 3 to 4 milligrams tar, that's not what the  
5 smoker would actually receive; correct?

6 A. It depends on the smoker.

7 Q. Right. You knew, for instance, that in addition  
8 to having low tar, those cigarettes also had reduced  
9 nicotine; correct?

10 A. That's right.

11 Q. And you knew that smokers would compensate to  
12 increase their delivery of nicotine up to what is the  
13 optimum level for that smoker; correct?

14 A. We didn't know that.

15 Q. You didn't know that?

16 A. No.

17 Q. When did you first learn about compensation?

18 A. I think most of the work on compensation in a  
19 big way happened after I left, the Kozlowski and all  
20 that.

21 Q. Dr. Rodgman, at the time you retired, officially  
22 once your -- your actual salary ended in March of  
23 1989, how much did you take home in retirement pay a  
24 month from RJR?

25 MR. BLANCATO: Objection. He doesn't need

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1 to answer that.

2 MR. O'FALLON: It goes to bias. He does  
3 need to answer it.

4 MR. BLANCATO: No, he's not answering  
5 that.

6 MR. O'FALLON: On what grounds? Is that a  
7 privilege in North Carolina?

8 MR. BLANCATO: It's personal information  
9 that is not relevant to the lawsuit.

10 MR. O'FALLON: It goes to bias.

11 MR. BLANCATO: You know he's been paid. He  
12 doesn't have to answer that. If the judge says he  
13 has to answer it, we will provide the information,  
14 but he's not answering that.

15 MR. O'FALLON: Okay. I'll take it to my  
16 judge and we'll find out.

17 MR. BLANCATO: Have your judge issue an  
18 order that will be effective in North Carolina law  
19 governing Dr. Rodgman.

20 MR. O'FALLON: Well since your order here  
21 in North Carolina says that it's going to comply with  
22 all the Minnesota orders, that shouldn't be that hard  
23 now, should it?

24 MR. BLANCATO: Well I don't think the North  
25 Carolina orders adopt the Minnesota substantive law,

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1 so we'll see.

2 MR. O'FALLON: Well I guess --

3 MR. BLANCATO: There was also a due process  
4 clause in the United States Constitution the last  
5 time I looked.

6 MR. O'FALLON: There's also a comedy  
7 clause, if you're familiar with constitutional law.

8 MR. BLANCATO: I am familiar with  
9 constitutional law.

10 MR. O'FALLON: Well good. I'm sure you'll  
11 understand that concept as well.

12 BY MR. O'FALLON:

13 Q. Are you going to take your attorney's advice,  
14 sir?

15 MR. BLANCATO: It's up to you, but I don't  
16 think you have to share that information. As I said,  
17 if the judge orders it, it can be provided very  
18 easily.

19 A. As I say, what I earned at -- what I get from  
20 Reynolds I don't think is any of your business.

21 MR. O'FALLON: And just so we're clear,  
22 what's R.J. Reynolds' position going to be on that  
23 issue?

24 MR. McDERMOTT: We'll respect Dr. Rodgman's  
25 privacy personally. If you want a schedule of

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1 retirement payments generally, I'm sure you can  
2 request that. I don't see that this has very much to  
3 do with the litigation. Dr. Rodgman's affiliation  
4 has been explored and is a matter of record. I don't  
5 think we need to in -- invade his personal financial  
6 situation any further.

7 MR. O'FALLON: What's your position as to  
8 whether or not I have to get an order from the North  
9 Carolina court?

10 MR. McDERMOTT: I'll consider that. I  
11 haven't looked at the conflict of laws issue, but my  
12 position is irrelevant. You're dealing with  
13 Mr. Rodgman's counsel.

14 MR. O'FALLON: No, I'm sorry, it's not,  
15 sir.

16 MR. BLANCATO: Well if I can speak, my  
17 position is --

18 MR. O'FALLON: Well I'm not asking you.

19 MR. BLANCATO: I just want to make the  
20 record clear. My position is you've got to get it  
21 from the North Carolina court.

22 MR. O'FALLON: And I'm not asking you.

23 MR. BLANCATO: That's fine.

24 MR. McDERMOTT: When you file a motion, we  
25 will either join, stay neutral or oppose.

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1                   MR. O'FALLON: So you're not going to take  
2 a position right now, Mr. McDermott? You know this  
3 issue's been now before the Minnesota court a couple  
4 of times, we've had numerous hearings, and I want --  
5 I want to understand RJR's position stated succinctly  
6 and to the point.

7                   MR. McDERMOTT: Well I'm not familiar with  
8 those hearings, Mr. O'Fallon. I will check over the  
9 break. For the time being, my position is it's  
10 Dr. Rodgman's business what he wants to do and you  
11 will hear from us when you make a motion.

12                  MR. O'FALLON: You're pro hac in Minnesota,  
13 aren't you, sir?

14                  MR. McDERMOTT: Yes, sir.

15                  MR. O'FALLON: You made an -- made an  
16 effort to try to keep abreast of what goes on in our  
17 litigation?

18                  MR. McDERMOTT: I have a lot of other  
19 duties, Mr. O'Fallon.

20                  MR. O'FALLON: Is that a no?

21                  MR. McDERMOTT: I have not followed every  
22 twist and turn. That is absolutely a no.

23                  MR. O'FALLON: Okay.

24                  MR. BLANCATO: Could we move on?

25 BY MR. O'FALLON:

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1 Q. Dr. Rodgman, has RJR -- RJR ever asked you for  
2 any of your personal documents? Do you -- strike  
3 that. Let's go back. Let's do this one one piece at  
4 a time.

5 Do you have any documents in your possession  
6 that are R.J. Reynolds documents or documents from  
7 your time at R.J. Reynolds --

8 A. Yes.

9 Q. -- other than the diaries?

10 A. Yes.

11 Q. What are those documents?

12 A. They're copies of -- of my formal reports on  
13 smoke composition.

14 Q. Has RJR ever asked you for those reports?

15 A. They have them all.

16 Q. Do you have anything in your files that RJR does  
17 not have?

18 A. Not that I know of.

19 Q. Dr. Rodgman, are you aware of an advertisement  
20 taken out in 1954 by the tobacco industry entitled "A  
21 Frank Statement to ... Smokers"?

22 A. Yes, I am.

23 MR. O'FALLON: I'd like to mark as the next  
24 exhibit a document that's -- actually I don't have to  
25 mark it. This is a document that's been previously

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1 marked in this litigation as Sistad Exhibit Number

2 2. I'd like to hand you a copy of that document.

3 MR. McDERMOTT: What's the designation?

4 MR. O'FALLON: It's Sistad Exhibit Number

5 2. I had originally designated a document

6 TIMN0029907. After designating that document, I

7 learned that the Frank Statement, a different copy of

8 it, had already been designated, it's my

9 understanding, early on by the defendants in one of

10 the -- in one of the Medicaid depositions.

11 MR. McDERMOTT: All right.

12 MR. O'FALLON: And as I understand our

13 court's order, I'm supposed to use that document

14 whenever possible. And I sent a letter to -- to

15 Jonathan Redgrave yesterday concerning that.

16 MR. BLANCATO: Thank you.

17 MR. O'FALLON: This is kind of a copy for

18 the table.

19 BY MR. O'FALLON:

20 Q. Would you like a second to review that?

21 A. Yes, I would, please.

22 MR. O'FALLON: Why don't we go off the

23 record.

24 THE REPORTER: Off the stenographic

25 record.

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1                             (Discussion off the stenographic record.)

2 BY MR. O'FALLON:

3 Q. I've handed you a document that's been marked  
4 previously in this litigation Sistad Exhibit Number  
5 2. Do you recognize that?

6 A. I've seen it before.

7 Q. And it's entitled "A Frank Statement to  
8 Cigarette Smokers"; correct?

9 A. No, it's titled "A Frank Statement."

10 Q. I just dropped my "A." I think it was there,  
11 but --

12 A. You said "the."

13 Q. Oh, "the"? I'm sorry.

14 "A Frank Statement to Cigarette Smokers";  
15 correct?

16 A. Right.

17 Q. And this was taken out by several tobacco  
18 companies, including R.J. Reynolds Tobacco Company;  
19 correct?

20 A. I assume that it says that.

21 Q. And it's your understanding that this was an  
22 advertisement; correct?

23                             MR. ZIRLIN: Object to the form of the  
24 question.

25 A. I don't know whether it was an advertisement or

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1 what it was. I wasn't there at that time -- at that  
2 time.

3 Q. But did you hear about this once you arrived at  
4 the company?

5 A. No.

6 Q. Do you understand the general principles that  
7 are set out in this?

8 A. Yes.

9 Q. Okay. This report states that "RECENT REPORTS  
10 on experiments with mice have given wide publicity to  
11 a theory that cigarette smoking is in some way linked  
12 with lung cancer in human beings," correct, in the  
13 very first paragraph?

14 A. Well it says that, but whoever wrote it was  
15 wrong.

16 Q. It then goes on to say that these experiments  
17 are not regarded as conclusive; correct?

18 A. That's right.

19 Q. Which would be an indication that the cigarette  
20 industry was telling the American public that those  
21 experiments were not conclusive or inconclusive;  
22 correct?

23 MR. BLANCATO: Object to the form.

24 MR. McDERMOTT: Object to the form of the  
25 question.

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1 A. Well, from my experience at the Banting  
2 Institute and carcinogenic research, you cannot  
3 compare results obtained on skin testing in mice,  
4 susceptible strains of mice treated with dramatically  
5 high levels of cigarette smoke condensate, to what  
6 happens in the lung of a smoker, and that had been  
7 known and in the literature since 1941 by Dr. Murry  
8 Shear and later at the North Carolina --

9 Q. Isn't it true, sir, that because the substance  
10 produces cancer in laboratory animals, there is a  
11 distinct possibility that the substance would have a  
12 carcinogenic effect on the human respiratory system?

13 A. May I ask you to do something for -- how are you  
14 defining carcinogenesis?

15 Q. Can you agree with that statement or not, sir?

16 A. I'm asking you to define carcinogenesis.

17 Q. How do you define carcinogenesis?

18 A. I define it the way it was defined in 1923.

19 Q. Why don't you give me your definition.

20 A. It's not my definition. I will give you the  
21 definition that was agreed on in 1923.

22 Q. Why don't you give me the definition that you  
23 used when you used the word "carcinogenic" in  
24 documents. Okay?

25 A. That it is a substance that causes carcinoma;

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1 it's a process whereby carcinoma is produced.

2 Q. And only carcinoma?

3 A. That's right.

4 Q. No other cancer?

5 A. Right.

6 Q. And that's how you used that term when you

7 wrote?

8 A. I tried to use it that way, yes.

9 Q. Okay. And that would apply as well back to your  
10 early writings; correct?

11 A. I probably slipped up and used it incorrectly,  
12 but even Dr. Wynder used it, varied occasionally.

13 Q. Well let me go and ask my question.

14 The fact that a substance produces cancer in  
15 laboratory animals means there's a distinct  
16 possibility that these substances would also have a  
17 carcinogenic effect on the human respiratory system.

18 Do you agree with that or disagree with that?

19 A. There's a possibility.

20 Q. A distinct possibility; correct?

21 A. Could be.

22 MR. BLANCATO: Object to the form.

23 A. But in the case of some of the stuff in  
24 cigarette smoke, it's never been proven.

25 Q. And that's your --

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1           That's your opinion as you sit here today?

2 A.    That's right.

3 Q.    That there's never been proven that there's a  
4 carcinogenic substance in cigarette smoke?

5           MR. BLANCATO: Object to the form of the  
6 question, misstates prior testimony.

7 A.    That's a very glib question, sir, but  
8 carcinogenesis depends on many things, and I can  
9 enumerate them if you want. But a substance can be  
10 carcinogenic or noncarcinogenic depending on how it's  
11 used.

12 Q.    My question is: Is it your position that it's  
13 never been proven that there is a single carcinogenic  
14 substance in cigarette smoke?

15 A.    Well there have been carcinogenic substances  
16 found in cigarette smoke at an extremely low level  
17 and on a level that can't explain some of the  
18 observations that Dr. Wynder gets.

19 Q.    Is this Frank Statement referring to a 1954  
20 report that concerns a substance known as  
21 polycyclic -- a polycyclic hydrocarbon known as  
22 3,4-benzpyrene or benzpyrene? I'm not sure how to  
23 pronounce that word.

24 A.    It's benzpyrene.

25 Q.    Benzpyrene.

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1 A. I don't know whether it refers to that or not.  
2 There was a big controversy between 1950 and 1957 of  
3 whether polycyclic hydrocarbons were present in  
4 cigarette smoke that were known to cause tumors in  
5 mouse skin, and one of the ones of course because of  
6 its potency was benzpyrene.

7 Q. It's a known carcinogenic agent; correct?

8 A. Sir, "a known carcinogenic agent" is -- is an  
9 inapt phrase because there are, for example,  
10 benzpyrene on a monkey is not carcinogenic. Nobody's  
11 ever produced a tumor in a monkey with benzpyrene.

12 Q. Is that because a monkey isn't susceptible to  
13 producing that tumor?

14 A. Well if you go down a -- a sequence of animals,  
15 the mouse is -- some mouse strains are very  
16 susceptible, the rat is less, the rabbit is even  
17 less, and so on.

18 Q. By 1955 R.J. Reynolds had identified 60  
19 polycyclic hydrocarbon compounds from the smoke of  
20 cigarettes; correct?

21 A. 60?

22 Q. Yes.

23 A. I don't think it was that many.

24 Q. Okay. Eight of those polycyclic hydrocarbons  
25 isolated by 1959 were from the -- from the smoke of

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1 cigarettes were known to produce cancer in mice;  
2 correct?

3 A. At an appropriate concentration.

4 Q. About five or six others were suspect as  
5 cancer-promoting agents in laboratory animals;  
6 correct?

7 A. I suspect you're quoting my report, aren't you?

8 Q. Is that correct or not?

9 A. Yes.

10 Q. And because these substances produced cancer in  
11 laboratory animals, there was a distinct possibility  
12 that these substances would have a carcinogenic  
13 effect on the human respiratory system; correct?

14 A. There was a possibility.

15 Q. You wrote that in 1959, didn't you?

16 A. Yeah.

17 MR. O'FALLON: Let's mark that report. I'm  
18 going to have marked as the next exhibit a document  
19 Bates stamp numbered 50094 5942 to 5945. You can  
20 mark it.

21 MR. McDERMOTT: What is the exhibit  
22 number?

23 THE REPORTER: 1049.

24 MR. CRIST: Are you going to mark that  
25 North Carolina order, Dan?

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1 MR. O'FALLON: It was marked.

2 MR. CRIST: Was it? Okay.

3 (Plaintiffs' Exhibit 1049 was marked

4 for identification.)

5 BY MR. O'FALLON:

6 Q. I'm handing you Exhibit 1049. Do you recognize

7 that document?

8 A. Yes.

9 Q. This is a document dated November 2nd, 1959  
10 entitled "THE OPTIMUM COMPOSITION OF TOBACCO AND ITS  
11 SMOKE"; correct?

12 A. That's right.

13 Q. This is a document written by yourself?

14 A. That's right.

15 Q. It was written in your ordinary course of your  
16 business; correct?

17 A. Yes.

18 Q. And maintained in the ordinary course of  
19 business; correct?

20 A. Right.

21 Q. You report that "In 1954 the first report of the  
22 presence of a carcinogenic," parenthetical,  
23 "(cancer-producing)," end parenthetical, "polycyclic  
24 hydrocarbon 3,4-benzpyrene in cigarette smoke was  
25 published"; correct?

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1 A. That's right.

2 Q. "Cancer-producing," that's your word, correct,  
3 sir?

4 A. Right.

5 Q. Doesn't say "carcinoma" there, does it, sir?

6 A. No.

7 Q. "Since then, approximately 60 similar compounds  
8 have been isolated from the smoke of cigarettes";  
9 correct?

10 A. That's right.

11 Q. And you wrote that in 1959; correct?

12 A. Right.

13 Q. You further wrote that "Eight of the polycyclic  
14 hydrocarbons isolated from the smoke are known to  
15 produce cancer in mice"; correct?

16 A. That's right.

17 Q. You go on to say "Another five or six are  
18 suspect as cancer-producing agents in laboratory  
19 animals"; correct?

20 A. That's right.

21 Q. You say, quote, "There is no evidence that any  
22 of these compounds will produce cancer in man.  
23 Nonetheless, there is a distinct possibility that  
24 these substances would have a carcinogenic effect on  
25 the human" medical "system. Medical experience has

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1 shown that man responds to various chemical  
2 substances in the same manner as experimental  
3 animals"; correct?

4 A. That's right.

5 Q. Did R.J. Reynolds take out an ad in 1959 that  
6 told the smokers that you've now identified numerous  
7 carcinogenic agents; that is, cancer-producing  
8 agents, and that there was a distinct possibility  
9 that those substances would have a carcinogenic  
10 effect in the human respiratory system of man?

11 A. Did they take out an advertisement?

12 Q. Yes.

13 A. No.

14 Q. Did they publish this article that said this?

15 A. Well if you read -- look at the first part, this  
16 is talking about what was in the literature.

17 Q. Move to strike.

18 Did they publish this? Did they take out some  
19 affirmative statement like they did when they put out  
20 "A Frank Statement to Cigarette Smokers"?

21 A. No, they didn't.

22 Q. Did they take out an affirmative statement?

23 A. Not that I know of.

24 Q. They certainly could have done that; correct?

25 MR. BLANCATO: Object to the form.

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1 MR. McDERMOTT: Object to the form.

2 Q. Sir, they could have done that; correct?

3 A. I don't know whether they could have or not.

4 Q. Okay.

5 A. You've got to remember I was a bench chemist.

6 Q. You then state in the third paragraph down that

7 "As described in RDR, 1956, Number 9, we in the R.

8 J. Reynolds Tobacco ... Research Department

9 corroborated the published findings with respect to

10 3,4-benzpyrene, obtained this compound in crystalline

11 form, and positively identified it as a constituent

12 of cigarette smoke on the basis of its chemical and

13 physical properties"; correct?

14 A. That's right.

15 Q. So in other words, you confirmed the exact

16 information that the 1954 A Frank Statement to

17 Smokers called inconclusive; correct?

18 MR. McDERMOTT: Object to the form of the

19 question, --

20 MR. BLANCATO: Object to the form.

21 MR. McDERMOTT: -- misstates the prior

22 testimony.

23 Q. Isn't part of what that 1954 Frank Statement

24 referring to is the report of the presence of

25 3,4-benzpyrene in cigarette smoke?

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1                   MR. McDERMOTT: Object to the form.

2 A. Where are you reading that, sir?

3 Q. Well it says "RECENT REPORTS on experiments with  
4 mice have given wide publicity to a theory that  
5 cigarette smoking is in some way linked with lung  
6 cancer in human beings." Isn't that what those mice  
7 experiments were about?

8 A. It wasn't about benzpyrene.

9 Q. Just about tar from cigarettes, wasn't it?

10 A. That's right.

11 Q. But benzpyrene's a known carcinogen; correct?

12 A. Yeah. At the time this was written, they  
13 didn't -- let me back up, if I may.

14                 Between 1954 and 1957, there was a big  
15 controversy, were polycyclic hydrocarbons present in  
16 cigarette smoke. There was some evidence published  
17 in 1954 that gave an indication that polycyclics were  
18 present, including benzpyrene, but there were people,  
19 very noted people, who said as late as 1957 that the  
20 published information was insufficient to say it was  
21 there, and that would happen to be Dr. Louie Fieser,  
22 head of the department at Harvard, who was also the  
23 chemist who wrote the chapter on chemistry in the  
24 Surgeon General's report. And I felt that I could  
25 identify the polycyclics in smoke and did.

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1 Q. I'm going to move to strike that question. By  
2 19 -- that answer.

3 By 1959 you confirmed that in fact polycyclic  
4 hydrocarbons were present in tobacco smoke, correct,  
5 your laboratory?

6 A. Let me say -- put it this way: I didn't confirm  
7 it; I proved it.

8 Q. You proved that they were there?

9 A. Yeah.

10 Q. And you proved that there were polycyclic  
11 hydrocarbons that had been known to produce cancer in  
12 mice that were present in the cigarette smoke and had  
13 known -- and another five or six that are suspect as  
14 being cancer-producing agents? You'd proved that  
15 those were now present in cigarette smoke; correct?

16 MR. McDERMOTT: Object to the form of the  
17 question.

18 MR. BLANCATO: Objection.

19 A. We demonstrated that they were there.

20 Q. Okay. Did you --

21 A. But because a compound, a polycyclic, what have  
22 you, is carcinogenic to the skin of mice, there was  
23 no evidence that they were carcinogenic to the lung.

24 It was a possibility at that time, but --

25 Q. It was more --

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1        It was more likely than not that those agents  
2    were carcinogenic; correct?

3    A.    Everybody that's tried it since has failed.

4    Q.    It's more likely than not that those polycyclic  
5    hydrocarbons in cigarette smoke are carcinogenic to  
6    man, aren't they, sir?

7    A.    I don't know. Nobody's been able to prove it.

8    Q.    Do you believe it's more likely than not, more  
9    likely than not?

10   A.    No, I don't.

11                    MR. BLANCATO: Object to the form.

12   Q.    You don't believe it's more likely than not --

13   A.    No, I don't.

14   Q.    -- that polycyclic hydrocarbons in cigarette  
15   smoke produce cigarette -- produce cancer in man?

16   A.    No, I don't.

17   Q.    R.J. Reynolds didn't take out an ad or publish  
18   an article that said, "Hey, we have now finally  
19   identified and confirmed and proven that polycyclic  
20   hydrocarbons are present in cigarette smoke," did  
21   they?

22   A.    No.

23   Q.    You note at the bottom part of paragraph three  
24   that "Some thirty-odd polycyclic hydrocarbons have  
25   since been similarly characterized in these

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1 laboratories. Of these, eight are carcinogenic to  
2 mouse epidermis"; correct?

3 A. They were reported to be so.

4 Q. "Cholanthrene" --

5 A. "Cholanthrene."

6 Q. How -- I'm sorry?

7 A. "Cholanthrene."

8 Q. "Cholanthrene, a potent carcinogen, is one of  
9 three not yet reported by other investigators";  
10 correct?

11 A. That's right.

12 Q. So you had now identified a substance,  
13 cholanthrene, a potent carcinogen that no one else  
14 had identified; correct?

15 A. That's right.

16 Q. Did you publish that information?

17 A. We presented it at meetings.

18 Q. Did you take out an ad and tell smokers that  
19 you'd found that information?

20 A. Scientists don't take out ads, sir.

21 Q. R.J. Reynolds can, though, can't it?

22 A. Well that's their --

23 MR. McDERMOTT: Object to the form.

24 MR. BLANCATO: Object to the form.

25 A. -- that's their prerogative.

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1 Q. Did R.J. Reynolds take out an ad?

2 A. Not that I know.

3 Q. On the discussion in page three, in the first  
4 paragraph of the discussion you state the question as  
5 follows: "Cigarette smoke should contain as little  
6 as possible (preferably ... the zero level) of ...  
7 polycyclic hydrocarbons"; correct?

8 A. That's right.

9 Q. And "... should possess satisfactory flavor to  
10 please the customer, and" also "should contain  
11 sufficient nicotine to supply the necessary  
12 requirements of the smoker"; correct?

13 A. Yeah.

14 Q. You then go on to state that "Cigarette smoke  
15 should be low in polycyclic hydrocarbons"; correct?

16 A. That's what I state.

17 Q. Okay. Let's go back for a second to the Frank  
18 Statement. In the Frank Statement, if you look at  
19 the second column, there's a statement about  
20 two-thirds of the way down in the second column that  
21 says "We believe the products we" are -- "make are  
22 not injurious to health." Based on the fact that by  
23 1955 -- 1959 you had now found the presence of  
24 numerous polycyclic hydrocarbons that were known to  
25 be carcinogenic in cigarette smoke, R.J. Reynolds

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1 could no longer safely say that its products were not  
2 injurious to health; correct?

3 A. I think that --

4 MR. ZIRLIN: Object to the form of the  
5 question.

6 A. I think you're mixing animal work with humans.

7 Q. R.J. Reynolds could not in 1959 say with any  
8 certainty that its products were not injurious to  
9 health, could it, based on the information that you  
10 and your colleagues had discovered?

11 A. Nobody else could say they were injurious.

12 Q. That's your testimony?

13 A. Yes, that's my testimony. And may I add  
14 something to that?

15 Q. No.

16 A. Okay.

17 MR. McDERMOTT: If he's got -- if he wants  
18 to expand his answer, he certainly can.

19 MR. BLANCATO: You can complete your  
20 answer.

21 THE WITNESS: Huh?

22 MR. BLANCATO: You can complete your  
23 answer.

24 A. If you read any of Dr. Wynder's work,  
25 Dr. Hoffmann, read what they say about benzpyrene, we

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1 cannot account in skin painting tests for more than 1  
2 and a half percent of the observed response on the  
3 basis of poly -- of benzpyrene, we cannot account for  
4 the observed effect on the basis of all the  
5 polycyclics, no matter what they are, period.

6 Q. Move to strike as nonresponsive.

7 In the Frank Statement RJR also said that "We  
8 accept an interest in people's health as a basic  
9 responsibility, paramount to every other  
10 consideration in our business"; isn't that true?

11 A. That's what they say.

12 Q. Shouldn't a company that considers and accepts a  
13 primary interest in people's health let the smoker  
14 know as soon as they discovered it that they had  
15 indeed confirmed that there were these potentially  
16 dangerous carcinogens in cigarette smoke?

17 MR. McDERMOTT: Object to the form of the  
18 question, no foundation, calls for legal  
19 conclusions.

20 You may answer.

21 A. Where were you reading from in this, sir?

22 Q. I was reading from right above where it said "We  
23 believe the products we make are not injurious to  
24 health." Do you want me to show you?

25 A. Yeah.

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1 Q. It's right here, that paragraph right there.

2 A. Okay. That's what they said. What was the  
3 question?

4 Q. My question is: Shouldn't a company that  
5 considers and accepts a primary interest in people's  
6 health let the smoker know as soon as they discovered  
7 that these polycyclic hydrocarbons were in smoke that  
8 these polycyclic hydrocarbons were in cigarette smoke  
9 and were potentially cancer producing?

10 MR. McDERMOTT: Same objection.

11 MR. BLANCATO: Objection to form.

12 A. Well, if you look at the -- and I'm sure you're  
13 going to strike this, but if you look at the -- what  
14 happened after 1954 with the tar delivery of  
15 cigarettes, we did, as Dr. Wynder suggested, lower  
16 the tar, and that's what we did.

17 Q. Move to strike as nonresponsive.

18 Shouldn't R.J. Reynolds have told the public  
19 about the discovery of these polycyclic  
20 hydrocarbons? Shouldn't they have taken out ads in  
21 papers just like they did when they did "A Frank  
22 Statement to Cigarette Smokers" to let these people  
23 know that these potentially carcinogenic agents are  
24 sitting in the cigarettes they're smoking?

25 MR. BLANCATO: Objection.

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1                   MR. McDERMOTT: Object to the form of the  
2 question, no foundation, calls for a legal  
3 conclusion.

4 A.     Here again the polycyclic hydrocarbons that  
5 you're talking about were effective on mouse skin.

6 Q.     And why didn't you test them on humans, sir?

7 A.     You can't test carcinogens on humans.

8 Q.     That's why you test them on mouse skin, isn't  
9 it, sir?

10 A.    Right.

11 Q.    And that's why R.J. Reynolds continued to use  
12 mouse skin painting itself in its own laboratory  
13 experiments well into the '70s; correct?

14 A.    We did not do a mouse experiment in 19 -- in any  
15 time in the '50s, the '60s, the '70s at R.J. Reynolds  
16 Tobacco Company.

17 Q.    You had them contracted, though, didn't you?

18 A.    Not in the '50s and '60s.

19 Q.    How about the '70s?

20 A.    We had some contracted.

21 Q.    By IBT; correct?

22 A.    Right.

23 Q.    And they produced tumors, didn't they, sir?

24 A.    Yes.

25 Q.    Tumors were produced by cigarette smoke in

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1 laboratory rats in 19 what, '72, '73, '74?

2 A. There was not a tumor produced on a rat.

3 Q. Mice?

4 A. Mice.

5 Q. Do you want to fight with me about it? I can --

6 you know, fine, mice.

7 A. Well you're fighting with me.

8 Q. So you did do --

9 You contracted for mouse skin painting tests;  
10 correct?

11 A. This had been done, sir, in 1953 by Dr. Wynder.

12 Q. And you disputed the findings in the Frank

13 Statement, didn't you? Your company disputed the

14 findings of Dr. Wynder in the Frank Statement?

15 MR. BLANCATO: Object to the form.

16 MR. McDERMOTT: Object to the form of the  
17 question. You're mischaracterizing the statement and  
18 prior testimony.

19 Q. No?

20 A. No.

21 Q. Dr. Rodgman, by 1962 the cigarette smoke lung  
22 cancer problem had been investigated  
23 epidemiologically, pathologically, biologically and  
24 chemically, hadn't it?

25 A. Yes, it had.

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1 Q. By 1962 the results of 34 different statistical  
2 studies showed that cigarette smoking increased the  
3 risk of lung cancer in human beings; correct?

4 A. There was an association, yes.

5 Q. It increased the risk; correct?

6 A. That's what the report said.

7 Q. The statistical data from the smoking-and-health  
8 studies were almost universally accepted; correct?

9 A. That's right.

10 Q. The cigarette smoke --

11 The cigarette smokers' lungs on looking at  
12 pathological data showed profound cellular changes;  
13 correct?

14 A. That's right, according to the reports.

15 Q. Cigarette smoke condensate was found to be  
16 carcinogenic to mouse skin; correct?

17 A. That's right.

18 Q. Inhalation studies with cigarette smoke had  
19 yielded increased incidence of adenomas in  
20 adenoma-susceptible mouse strains; correct?

21 A. That's right, but they had produced no carcinoma  
22 and still haven't till this day.

23 Q. Is an adenoma a cancer?

24 A. It's a cellular type of cancer.

25 Q. It's a cancer?

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1 A. Yeah.

2 Q. It's a cancer in the lung of mice; right?

3 A. Well and that mouse strain is -- was bred to  
4 develop the adenoma. If you don't do anything to it,  
5 it will die of adenoma.

6 Q. That's your testimony?

7 A. Yeah. Mouse -- the Strain A mouse will die of  
8 adenoma if you don't do anything to it.

9 Q. So when you do mouse skin painting tests, you  
10 should have 1 hundred percent tumors in those mice;  
11 correct, sir?

12 A. No. You're talking about inhalation, aren't  
13 you?

14 Q. Oh, I'm sorry, inhalation. Should we have a  
15 hundred percent tumors in those mice?

16 A. Well the way they use that study, sir, is since  
17 the Strain A mouse was developed to generate an  
18 adenoma, they measure the time that the adenoma start  
19 appearing and on some inhalation studies they start  
20 earlier.

21 Q. And so you conclude from that that the --  
22 whatever substance it is that has been inhaled is a  
23 cancer-producing substance; correct, sir?

24 A. Not necessarily. It just speeds up their --

25 Q. So we shouldn't have even done those inhalation

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1 studies?

2 A. I didn't do them, and everybody that has done  
3 them with the Strain A mouse has indicated that they  
4 are subsequently not useful.

5 THE REPORTER: Off the record, please.

6 (Recess taken.)

7 BY MR. O'FALLON:

8 Q. Dr. Rodgman, by 1962 cigarette smoke had been  
9 determined to contain at least 17 compounds  
10 carcinogenic to mouse skin; correct?

11 A. I think that's the number.

12 Q. Okay. Now in 1962 you took a look at all of  
13 this evidence, did you not?

14 A. Uh-huh.

15 THE REPORTER: Your answer's yes?

16 THE WITNESS: Yes.

17 MR. O'FALLON: Let's mark this as the next  
18 exhibit.

19 (Plaintiffs' Exhibit 1050 was marked  
20 for identification.)

21 BY MR. O'FALLON:

22 Q. Dr. Rodgman, we've had marked as Exhibit 1050 a  
23 document Bates stamp numbered 50482 2847 through 2852  
24 entitled at the top "THE SMOKING AND HEALTH  
25 PROBLEM -- A CRITICAL AND OBJECTIVE APPRAISAL."

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1           Do you recognize that document?

2 A.     Yes, I do.

3 Q.     This is a document that you wrote; correct?

4 A.     Yes.

5           MR. BLANCATO: May I point out this doesn't  
6 appear to be a complete document. Are you aware of  
7 that?

8           MR. O'FALLON: It's the document that was  
9 produced to us.

10          MR. BLANCATO: Okay.

11 Q.     Under your memorandum portion on the first  
12 state -- page you state that "Although the major part  
13 of the sales of" this cigarette -- "of this Company  
14 consists of cigarettes, what the Company is really  
15 selling is cigarette smoke"; correct?

16 A.     I said that in 1954.

17 Q.     You then go on to state that "This Company,  
18 therefore, should be" -- and I believe that's the  
19 word "greatly" that's crossed out -- "concerned with  
20 the physiological properties and composition of  
21 cigarette smoke"; correct?

22 A.     That's right.

23 Q.     And when you use the word "physiological," you  
24 mean the effect of cigarette smoke on the body;  
25 correct?

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1 A. That's right.

2 Q. You then state "The benefits from such knowledge  
3 are obvious, particularly" -- and I don't -- there's  
4 a word out -- "it anticipates possible future  
5 governmental regulation. During the past two  
6 decades, cigarette smoke has been the target of a  
7 host of studies relating it to ill-health and  
8 particularly to lung cancer. The majority of these  
9 studies incriminate cigarette smoke from a health  
10 viewpoint"; correct?

11 A. Right.

12 Q. You then go on to analyze epidemiological data,  
13 pathological data, biological data and chemical data;  
14 correct?

15 A. That's right.

16 Q. Under the epidemiological data -- and that's  
17 again studies on human beings; correct?

18 A. That's right.

19 Q. You state that "The results of 34 different  
20 statistical studies show that cigarette smoking  
21 increases the risk of developing lung cancer";  
22 correct?

23 A. Right.

24 Q. Under pathological data --

25 A. You didn't talk about the second paragraph.

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1 Q. Your attorney can come back and ask you about  
2 that when they want.

3 A. Okay.

4 Q. Under pathological data, you state "It has been  
5 observed that cigarette smokers' lungs show profound  
6 cellular changes which are proportional to cigarette  
7 consumption"; correct?

8 A. Right.

9 Q. That would indicate some cause-and-effect  
10 relationship; correct?

11 A. I don't know what it means.

12 Q. Are those cellular changes abnormalities in the  
13 lung?

14 A. Well there was a big discussion at that time  
15 whether they were or not. They were different.  
16 Whether they were abnormal is another thing.

17 Q. They wouldn't occur under normal conditions;  
18 right?

19 A. Well if you know anything about the cellular  
20 changes in lungs, you get the same changes by having  
21 the measles or the flu or tuberculosis or  
22 bronchitis.

23 Q. So cigarette smoke was causing changes in the  
24 lungs similar to bronchitis?

25 A. That's right.

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1 Q. Or tuberculosis?

2 A. That's right, the cellular changes.

3 Q. Neither one of those are conditions you want,

4 are they?

5 A. You asked me about the cellular changes.

6 Q. Tuberculosis is a life-threatening disease;

7 correct?

8 A. I know that.

9 Q. It's certainly not something that you want in

10 your lungs, is it?

11 Did you ever tell the smokers that the smoke  
12 they were inhaling would produce changes in the lungs  
13 similar to tuberculosis?

14 A. We didn't have to. Dr. Auerbach had it all over  
15 the New York Times.

16 Q. He didn't have that all over the New York Times  
17 until 1969, did he?

18 A. It's in his earlier work.

19 Q. This is 1962. In 1962 did R.J. Reynolds tell  
20 the smokers that the pathological changes that they  
21 were seeing in the lungs of smokers were similar to  
22 pathological changes that you would see in  
23 tuberculosis?

24 A. We didn't have to, sir. I got this out of the  
25 literature.

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1 Q. And you didn't tell them that, did you?

2 A. It had already been told to the people.

3 Q. You took out an ad in 1954 that told the --

4 A. I didn't take out an ad.

5 Q. R.J. Reynolds took out an ad in 1954 that told

6 the people that your products aren't injurious to

7 health. Don't you think you have to correct that --

8 that misstatement?

9 MR. BLANCATO: Objection.

10 MR. McDERMOTT: I object to the form of the

11 question, and you're misreading that paragraph.

12 You're also arguing with the witness. "We believe."

13 Q. "We believe the products we make are not

14 injurious to health," correct, that's what R.J.

15 Reynolds state?

16 MR. McDERMOTT: "We believe."

17 Q. R.J. Reynolds stated that; correct?

18 A. They were part of it.

19 Q. But now you've got evidence that indicates and

20 an R.J. Reynolds employee, you, a relied-upon

21 employee, a doctorate in chemistry who's worked at a

22 medical institution before ever coming to RJR, is

23 telling them and is indicating that there are changes

24 in the smokers' lungs which are similar to those

25 you'd see in tuberculosis. Did R.J. Reynolds ever

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1 tell anybody that?

2 A. Sir, they didn't have to. It was already in the  
3 literature. What I was -- if you know anything about  
4 the scientific method, there's a way to handle it.

5 Q. Apparently cigarette smoke is also responsible  
6 for ciliary paralysis; correct?

7 A. That was the theory at that time.

8 Q. And that's what you're reporting here; right?

9 A. Yes. That's all been disproved.

10 Q. So it's your testimony as we sit here today that  
11 cigarette smoke does not cause any ciliary paralysis  
12 in the lungs?

13 A. Not anything significant. It's all been  
14 disproved.

15 Q. That's all --

16 You're now saying that's all been disproved?

17 A. Yeah.

18 MR. McDERMOTT: Dr. Rodgman, please answer  
19 audibly.

20 THE WITNESS: Oh, okay.

21 MR. BLANCATO: Try to speak up when you  
22 answer.

23 Q. You then look at biological data on page three;  
24 correct?

25 A. Uh-huh.

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1 Q. And you say that "Cigarette smoke condensate is  
2 carcinogenic to mouse skin"; correct?

3 A. Right, which had been in the literature for  
4 eight, nine years.

5 Q. You also say --

6 Yeah, but disputed by R.J. Reynolds; correct?

7 MR. McDERMOTT: Object to the form of the  
8 question.

9 A. They don't dispute it.

10 Q. They say their products aren't injurious to  
11 health?

12 A. No, that --

13 MR. McDERMOTT: That's nine years earlier  
14 and it says "We believe." There is no dispute about  
15 the data in 1962. You're mischaracterizing the  
16 document, this witness's testimony and the document  
17 before you.

18 MR. ZIRLIN: He also never said that the --

19 MR. O'FALLON: You know, the word  
20 "objection" is the word we use here. Okay? No more  
21 speaking objections.

22 MR. McDERMOTT: No more arguing with the  
23 witness, please, and no more mis -- misstating prior  
24 testimony.

25 BY MR. O'FALLON:

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1 Q. You also state that "Inhalation studies with  
2 cigarette smoke have yielded an increased incidence  
3 of adenomas in adenoma-susceptible mouse strains";  
4 correct?

5 A. I've already explained that, I believe.

6 Q. Yeah. You then go on to say "No human-type  
7 carcinomas have been produced although the previously  
8 mentioned cellular changes and bronchitic" changes  
9 "have"; correct?

10 A. That's right.

11 Q. So there have been cellular changes and  
12 bronchitic changes produced that are human-type  
13 conditions; correct?

14 A. I don't know whether they're human type or not.

15 Q. Well wasn't that the implication?

16 A. I don't think so.

17 Q. Well you say "No human-type carcinomas have been  
18 produced although the previously mentioned cellular  
19 changes and bronchitic" changes -- "conditions have";  
20 correct?

21 A. Well it doesn't say anything about human-type  
22 cellular changes.

23 Q. And you don't think that's the implication of  
24 that sentence?

25 A. Not really.

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1 Q. You say "These findings are interpreted by some  
2 as an indication that cigarette smoke is not  
3 carcinogenic to human lung tissue. Two facts offset  
4 such thinking. First, mice are not men, hence  
5 carcinomas should not be expected in a host resistant  
6 to the induction of carcinoma of the lung and whose  
7 usual lung cancer is the adenoma." That's your  
8 language; correct, sir?

9 A. Right.

10 Q. "Secondly, the ratio, lung cancer death to total  
11 cigarette smokers in the United States, is  
12 approximately 1 to 1700, hence an inhalation  
13 experiment would require about 1700 mice for the  
14 production of one lung carcinoma, assuming the  
15 response of mouse and human ... tissue was the same";  
16 correct?

17 A. That's right.

18 Q. You --

19 You then talk about chemical data. You say  
20 "Cigarette smoke contains at least 17 compounds  
21 carcinogenic to mouse skin"; correct?

22 A. That's right.

23 Q. You say "Cigarette smoke also contains  
24 promoting," parenthetical, "(or cocarcinogenic)," end  
25 parenthetical, "agents"; correct?

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1 A. That's right.

2 Q. You then look at the data, and on page four  
3 under "The Evidence to Date" you state, quote,  
4 "Obviously, the amount of evidence accumulated to  
5 indict cigarette" smoking "as a health hazard is  
6 overwhelming. The evidence challenging this  
7 indictment is scant"; correct?

8 A. That's what I said.

9 Q. As of 1962, was it your opinion that it was more  
10 likely than not that cigarette smoking caused health  
11 problems?

12 A. No. This paper, if I may offer an answer --

13 MR. McDERMOTT: Certainly.

14 Q. I think you did answer the question.

15 A. Pardon?

16 MR. BLANCATO: Go ahead. You can explain  
17 your answer.

18 A. May I explain my answer, sir?

19 Q. I will move to strike it.

20 MR. McDERMOTT: Finish your answer,  
21 Dr. Rodgman.

22 Q. You've answered my question.

23 A. If you look at what was in the literature, the  
24 evidence would appear to be overwhelming, but what we  
25 knew at Reynolds from our work and from other

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1 people's work was that some of the evidence -- and  
2 here I dealt primarily with chemistry -- was wrong  
3 and since has been proven wrong not by laboratories  
4 of the tobacco companies, but NCI. In fact, some of  
5 the things that were being claimed by the  
6 anti-tobacco people, like Wynder and Hoffmann, they  
7 proved themselves it was wrong. So if all you were  
8 hearing was one side, that's why I said it was  
9 overwhelming.

10 Q. You said this is an objective appraisal and  
11 objectively you stated that after reviewing the  
12 evidence it was --

13 A. Well the only evidence --

14 Q. -- overwhelming?

15 You had evidence in your own labs, didn't you,  
16 sir?

17 A. Yeah.

18 Q. You had the evidence that was being done by CTR  
19 on your behalf; correct?

20 MR. ZIRLIN: Object to the form of the  
21 question.

22 Q. Studies that were being paid for and directed by  
23 lawyers defending the tobacco industry; correct?

24 MR. ZIRLIN: Object to the form of the  
25 question, assumes --

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1 A. What are you talking about, sir?

2 Q. Studies that were being paid for by the tobacco  
3 industry and directed by your attorneys, that's the  
4 kind of work that was going on at CTR. You had that  
5 work, didn't you?

6 MR. McDERMOTT: Object, argumentative, and  
7 it misstates the record. There's not a single fact  
8 to that effect in 1962.

9 A. As far as I know, sir, there was work going on  
10 at CTR or TIRC.

11 Q. So --

12 A. But as far as I know, there were -- no lawyers  
13 were involved.

14 Q. And you yourself were doing work and you  
15 yourself were identifying carcinogens in cigarette  
16 smoke; correct?

17 A. I was identifying the composition of cigarette  
18 smoke.

19 Q. Did R.J. Reynolds ever take out an advertisement  
20 that said obviously the amount of evidence  
21 accumulated to indict cigarette smoke as a health  
22 hazard is overwhelming?

23 A. No, not that I know of.

24 Q. Or that the evidence challenging the indictment  
25 is scant, they never took that advertisement out, did

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1 they?

2 A. No.

3 Q. Instead RJR has -- has then and continues today  
4 to insist that there's a controversy here; isn't that  
5 true?

6 MR. BLANCATO: Objection.

7 MR. McDERMOTT: Object to the form of the  
8 question.

9 A. I don't know what they.

10 (Plaintiffs' Exhibit 1051 was marked  
11 for identification.)

12 BY MR. O'FALLON:

13 Q. Take a look at Exhibit 1061 -- 1051?

14 A. Uh-huh.

15 Q. Have you ever seen that before?

16 A. Yes.

17 Q. What is it?

18 A. It's a little article written by R.J. Reynolds  
19 Tobacco Company.

20 Q. Claiming that there's still a controversy about  
21 cancer; correct?

22 MR. McDERMOTT: Object, no foundation.

23 MR. BLANCATO: I object as well. The  
24 document speaks for itself.

25 Q. Let's look under the part where it says "Is

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1 There Another Explanation?" RJR talks about "One  
2 theory that is gaining scientific support is the  
3 so-called 'constitutional hypothesis"'; isn't that  
4 true?

5 A. Uh-huh, that's right.

6 Q. You had something to say about this  
7 constitutional hypothesis in your paper in 1962,  
8 didn't you, sir? Let's look on page two of that  
9 report under "Epidemiological Data."

10 A. Uh-huh, page two.

11 Q. Under paragraph two you state "Contradictory  
12 data have been provided by limited statistical  
13 studies which suggest that cigarette smoking is  
14 linked to a" con -- "constitutional factor. The  
15 results of these studies can, however, account for  
16 only a small fraction of the difference in lung  
17 cancer incidence observed between smokers and  
18 nonsmokers"; correct?

19 A. That was the evidence at that time.

20 Q. So in 1962 you were saying that it doesn't  
21 account for it; correct?

22 MR. BLANCATO: Object to the form.

23 A. On -- on the basis of what was published at that  
24 time, which was rather scant, you know, that's what  
25 was there.

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1 Q. As we sit here today, the incidence of lung  
2 cancer in smokers is still much, much greater than  
3 the incidence of lung cancer in nonsmokers; isn't  
4 that true, sir?

5 A. I believe so.

6 Q. That certainly hasn't changed since 1962, has  
7 it?

8 MR. McDERMOTT: Object to the form of the  
9 question.

10 Q. Isn't that true?

11 A. Pardon?

12 Q. That fact has remained the same since 1962;  
13 correct?

14 A. That's right.

15 Q. In 1969 Dr. Auerbach believed that he saw in his  
16 experiments on dogs lung carcinoma in the dogs;  
17 correct?

18 A. That was a very peculiar experiment.

19 Q. And it was funded by The Council for Tobacco  
20 Research, wasn't it?

21 A. I don't know.

22 MR. ZIRLIN: Object to the form of the  
23 question, assumes facts not in evidence.

24 Q. You don't recall that?

25 A. I don't know who funded it.

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1 Q. Do you know whether Dr. Auerbach ever did any  
2 work for The Council for Tobacco Research?

3 A. No, I don't.

4 Q. In this report in 1962 you correctly predict  
5 that the Surgeon General's committee would find a  
6 cause-and-effect relation between lung cancer and  
7 smoking, don't you?

8 A. I don't believe I said that.

9 Q. Well look at -- look at page four,  
10 "Interpretation of the Evidence," Roman numeral  
11 number II, Bates number 2850. It says "After  
12 reviewing this evidence, governmental health agencies  
13 and medical societies throughout the world have  
14 concluded that" the "cause-and-effect relationship  
15 exists between cigarette smoke and lung cancer. It  
16 is predicted that the recently appointed Surgeon  
17 General's Advisory Committee on Smoking and Health  
18 will reach the same conclusion"; correct?

19 A. Well, I said that because most of the people  
20 that were talking cause and effect ignored the fact  
21 that you can't produce -- prove cause and effect by  
22 statistical studies.

23 Q. Well you apparently also ignored that fact in  
24 coming to your conclusion in analyzing this data as  
25 well; correct, sir?

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1 A. Well --

2 MR. McDERMOTT: Object to the form of the  
3 question.

4 A. -- everybody had said the same thing or a lot of  
5 people had, but the association was cause and effect,  
6 which you can't prove.

7 Q. So as you sit here today, it's still your  
8 testimony that there's no cause and effect that's  
9 proven between cigarette smoking and health problems;  
10 right?

11 A. That's right.

12 Q. And so it would certainly be reasonable for a  
13 smoker to conclude the same thing; correct?

14 MR. McDERMOTT: Object to the form of the  
15 question.

16 A. I don't know what a smoker would conclude.

17 Q. Well based on the advertisements that Reynolds  
18 has taken out, the Frank Statement or a Frank  
19 Statement in 1954, the documents we've looked at,  
20 Reynolds is telling everybody out there that there's  
21 still this controversy; you, one of their scientists,  
22 are saying there's a controversy; so it's certainly  
23 reasonable for a smoker to ignore in essence the  
24 Surgeon General's warnings and conclude there's no  
25 cause and effect proven; correct?

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1                   MR. McDERMOTT: Object to the form of the  
2 question.

3                   MR. BLANCATO: Objection.

4 A.    I don't know where you're going with that it's  
5 so long.

6 Q.    Is it reasonable for a smoker to conclude that  
7 there's no cause-and-effect relationship proven  
8 between smoking and problems?

9                   MR. McDERMOTT: Object to the form of the  
10 question.

11 A.    I don't know what a smoker would conclude.

12 Q.    Are you a smoker?

13 A.    No.

14 Q.    Well you've concluded as a nonsmoker that  
15 there's no cause-and-effect relationship. Do you  
16 consider that a reasonable conclusion?

17                  MR. ZIRLIN: Object to the form of the  
18 question.

19                  MR. McDERMOTT: Object to the form of the  
20 question. He's here as a scientist and a researcher  
21 from the Reynolds Tobacco Company.

22 A.    Would you say that again, please.

23 Q.    Do you believe it's reasonable to conclude that  
24 there is no proven cause-and-effect relationship  
25 between smoking and health problems?

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1 A. I believe there is no proof that there's a  
2 cause-and-effect relationship between smoking and any  
3 disease.

4 Q. And you believe that's a reasonable conclusion  
5 for you to make?

6 MR. McDERMOTT: Object to the form of the  
7 question.

8 A. In the term of using -- in using the term  
9 "reasonable" or "reason," I think so.

10 Q. And so it would be equally reasonable for a  
11 smoker to make that conclusion, especially when you  
12 consider that you've got public statements by a  
13 cigarette manufacturer, R.J. Reynolds, telling them  
14 that that's what they should conclude; correct?

15 MR. McDERMOTT: Object to the form of the  
16 question. You're confusing two different things.

17 A. I doubt that you can find too many smokers that  
18 ever seen that '54 ad.

19 Q. Do you think you can find some smokers that have  
20 seen these more recent RJR pronouncements that  
21 there's still a controversy?

22 A. I imagine you can.

23 Q. Basically says the same thing as the 1954 ad  
24 except it doesn't spell out RJR's commitment to the  
25 health of smokers, does it?

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1                   MR. McDERMOTT: Object to the form of the  
2 question, argumentative.

3   A.  50 million people still smoking.

4   Q.  And it's reasonable for them to all conclude and  
5 rely on you, the cigarette manufacturers, when you  
6 say there's no cause-and-effect relationship proven  
7 here; correct?

8                   MR. McDERMOTT: Object to the form of the  
9 question. You're arguing with the witness and you're  
10 calling for legal conclusions.

11                  MR. O'FALLON: Reasonableness is actually a  
12 jury conclusion, sir.

13   A.  I think if they reason it, they'll come to the  
14 same conclusion.

15   Q.  Are you familiar with nitrosamines?

16   A.  Yes.

17   Q.  Are nitrosamines known carcinogenic agents?

18   A.  In my definition of a carcinogen, I don't  
19 believe they are.

20   Q.  Well your definition of a carcinogen apparently  
21 changes over time, so let's use the definition that  
22 you used in your 1959 memo where you said they were  
23 cancer producing. Are nitrosamines thought to be  
24 cancer producing?

25                  MR. McDERMOTT: I object to the form of the

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1 question. You're arguing and badgering the witness.

2 MR. O'FALLON: I'm not badgering. I'm  
3 using his words from his own documents as his  
4 definition.

5 Q. So I'm going to use that definition that you  
6 laid out in your 1959 memo where you said  
7 carcinogenic, quote, "cancer-producing." Are  
8 nitrosamines cancer producing?

9 A. They produce cancer --

10 Q. Okay.

11 A. -- in -- in --

12 Q. And nitros --

13 A. If you let me finish the question, please --  
14 answer.

15 MR. McDERMOTT: Let him finish his answer.

16 A. They will have produced it in a variety of  
17 animals by a variety of -- of modes of  
18 administration, but not skin painting and not in  
19 humans.

20 Q. They've never --

21 Nitrosamines have never produced cancer in  
22 humans?

23 A. Not that anybody knows.

24 Q. And why is that, sir?

25 A. I don't know.

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1 Q. Is that because you can't test nitrosamines  
2 directly in humans? I mean, to really find out  
3 whether nitrosamines produce cancer in humans, we'd  
4 have to give a certain group of humans a certain  
5 level of nitrosamines; isn't that true?

6 A. That's right.

7 Q. Those studies aren't done for ethical reasons;  
8 isn't that true?

9 A. No.

10 Q. That's part of the reason we do animal studies,  
11 is because we can't directly conduct cancer research  
12 on human beings like that; correct?

13 A. We do animal work so that if you can show that  
14 the mode of administrations are similar and you get a  
15 similar result, then you begin to look at it.

16 Q. Nitrosamines have produced cancer in a number of  
17 animals; correct?

18 A. That's right.

19 Q. It's reasonable to conclude --

20 A. But at levels much higher than the average human  
21 being will ever be exposed to.

22 Q. And you studied that specifically?

23 A. I haven't.

24 Q. Did you ever --

25 A. I haven't done --

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1 Q. -- study that specifically at RJR?

2 A. Nitrosamines?

3 Q. Yeah, and the level it would take to produce a  
4 cancer in a human being with a nitrosamine.

5 MR. McDERMOTT: Are you asking whether he  
6 conducted a study or whether he reviewed literature?

7 MR. O'FALLON: I think my question speaks  
8 for itself.

9 A. I have never done a biological study at RJR. I  
10 did them at University of Toronto before I came.

11 Q. Nitrosamines have been identified in cigarette  
12 smoke; correct?

13 A. That's right.

14 MR. O'FALLON: Let's mark this as the next  
15 exhibit.

16 (Plaintiffs' Exhibit 1052 was marked  
17 for identification.)

18 BY MR. O'FALLON:

19 Q. I am handing you as Exhibit 1052 a document  
20 Bates stamp numbered 50101 3277 dated August 31st,  
21 1964. Do you recognize this document?

22 A. Yes.

23 Q. This is a document written by you; correct?

24 A. Yes.

25 Q. It was written in your ordinary course of

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1 business; correct?

2 A. It was written in answer to a question from  
3 Mr. Charles Wade.

4 Q. As part of your ordinary course of business;  
5 correct?

6 A. Yes.

7 Q. As part of your duties and responsibilities at  
8 R.J. Reynolds Tobacco Company?

9 A. Right.

10 Q. Specifically you told him that you're already  
11 aware of the reported isolation of nitrosamines from  
12 tobacco smoke; correct?

13 A. Yes.

14 Q. You say "Many nitrosamines have ... shown to be  
15 carcinogenic for different organs in several species  
16 of animals"; correct?

17 A. That's right.

18 Q. "As nitrosamines are formed by the reaction of  
19 oxides of nitrogen with secondary amines, it is  
20 possible that the cigarette smoke could contain  
21 nitrosoanabasine and" nitrosonor --

22 A. "Nitrosonornicotine."

23 Q. "Nitrosonornicotine." And did they in fact  
24 contain such?

25 A. It was shown many years later that it did.

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1 Q. Right.

2 A. At a very low level.

3 Q. What caused the occurrence of nitrosamines to go  
4 up or go down? What constituents of tobacco caused  
5 the nitrosamines to form?

6 A. Nicotine and nitrogen oxide.

7 Q. So the level of nitrosamines would somewhat be a  
8 function of the level of nicotine in the cigarette  
9 smoke; correct?

10 A. That's right. These two in particular that  
11 they're talking about.

12 Q. There are other nitrosamines in cigarette smoke;  
13 correct?

14 A. That's right.

15 Q. What other nitrosamines are there?

16 A. There's what's called volatile nitrosamines,  
17 nitrosodimethylamine, nitrosodiethylamine, that are  
18 primarily formed from proteins in tobacco.

19 Q. How many of those nitrosamines have been shown  
20 to be cancer producing in animals?

21 A. The ones in cigarette smoke or altogether?

22 Q. The ones in cigarette smoke.

23 A. Well there's 22 in -- 23 in tobacco and smoke  
24 that are known and all but one have been shown to be  
25 tumorigenic in animals by some route or other at very

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1 high concentrations. There are 400 nitrosamines  
2 known, but 375 are tumorigenic and many of them exist  
3 in many of the things you eat.

4 Q. So we've got 23 nitrosamines in tobacco that  
5 have been shown to be carcinogenic or cancer  
6 producing?

7 A. 23 in tobacco and tobacco smoke.

8 Q. That have been shown to be carcinogenic?

9 A. All but one have been shown to be  
10 carcinogenic -- tumorigenic in animals.

11 Q. Tumorigenic. So we've got 22 nitrosamines in  
12 tobacco or tobacco smoke that have been shown to be  
13 tumorigenic; correct?

14 A. That's right.

15 Q. And that means tumor producing; correct?

16 A. Right.

17 Q. So now we've got the polycyclic hydrocarbons  
18 which have been shown to be cancer producing and  
19 nitrosamines which have been shown to be tumor  
20 producing in cigarette smoke; correct?

21 A. That's right.

22 Q. And that's all known by 1964?

23 A. No. These two hadn't been identified in smoke  
24 yet, and there was a big controversy about the work  
25 of the South African scientists because what -- they

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1 were getting some artifactual formation of  
2 nitrosamines in the way they did the analysis.  
3 Subsequently when it was all straightened out  
4 scientifically, it was found that they were there at  
5 very low levels.

6 Q. So nitrosoanabasine, nitrosoanabasine, was shown  
7 to be in cigarette smoke?

8 A. Yes.

9 Q. And that particular substance has produced many  
10 tumors in the esophagus when given orally to rats;  
11 correct?

12 A. That's right. Here again at very high  
13 concentration.

14 Q. But for how long a period of time?

15 A. What do you mean?

16 Q. Well how long were they given the substance?

17 A. They were fed it.

18 Q. For how long?

19 A. They were fed it for their lifetime till they  
20 died.

21 Q. Which is how long?

22 A. Well what are we talking?

23 Q. A couple years?

24 A. We're talking about a rat?

25 Q. Sure.

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1 A. Well a rat's about 3 years, mouse about 2, which  
2 is equivalent to 70 years in a man. But here again  
3 you've got to remember the concentrations were way  
4 above anything you would see in cigarette smoke.

5 Q. So did you underestimate -- undertake to study what  
6 the concentration of nitrosamines would be in a human  
7 being over time?

8 A. No, we didn't.

9 Q. Isn't that something you'd want to know?

10 A. Well the first thing you had to decide was  
11 whether Serfontein and Hurter had a true bill of  
12 goods.

13 Q. You ultimately identified these nitrosamines in  
14 cigarette smoke; correct?

15 A. I didn't.

16 Q. Somebody did?

17 A. Somebody did.

18 Q. I mean, the fact that you now know that these  
19 nitrosamines exist in cigarette smoke as a company  
20 that's accepted an interest in people's health as a  
21 basic responsibility paramount to every other  
22 consideration in their business, shouldn't they start  
23 to -- to study and determine how many and at what  
24 quantity these nitrosamines exist in cigarette smoke  
25 and exist --

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1 A. We did.

2 Q. -- in humans?

3 MR. ZIRLIN: Object to the form of the  
4 question.

5 MR. McDERMOTT: Object to the form of the  
6 question.

7 Q. And at what levels do they exist in humans?

8 A. I beg your pardon?

9 Q. At what levels do they end up existing in  
10 humans? At what level does a cigarette smoker get  
11 these various nitrosamines?

12 A. Very low levels.

13 Q. What level?

14 A. I don't know the exact figure, sir. The  
15 laboratory that is noted for its work on nitrosamines  
16 is Dietrich Hoffmann.

17 Q. You didn't do that study? R.J. Reynolds didn't  
18 do that study?

19 A. We didn't.

20 MR. McDERMOTT: What study?

21 MR. O'FALLON: The nitrosamine exposure  
22 study.

23 A. No, we didn't do it.

24 Q. Did you yourself as part of your fractionation  
25 work ever take a look and determine whether these

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1 various nitrosamines exist in smoke?

2 A. No.

3 MR. McDERMOTT: You're asking Dr. Rodgman

4 personally --

5 A. Personally?

6 MR. McDERMOTT: -- or the company?

7 MR. O'FALLON: I'm asking Dr. Rodgman.

8 MR. McDERMOTT: Personally or the company?

9 A. By the time --

10 Q. Did you or your company ever do work on

11 identifying nitrosamines --

12 A. Yes.

13 Q. -- in smoke?

14 A. Right.

15 Q. Did you do that work?

16 A. I did not do that work.

17 Q. When --

18 What year was that done?

19 A. 1965. It was after this report from Serfontein

20 and Hurter came out. Everybody jumped in to see what

21 the heck's going on.

22 Q. And you confirmed that there were nitrosamines

23 in smoke?

24 A. We -- we confirmed that there were -- the

25 volatile nitrosamines were present in cigarette

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1 smoke, nitrosodimethylamine, nitrosodiethylamine and  
2 so on. The compounds that are talked about here,  
3 nitrosoanabasine and nitrosonornicotine, weren't  
4 identified in tobacco smoke till the mid-'70s by  
5 Dr. Hoffmann. Nobody could figure out, if they were  
6 there, how to get them out.

7 Q. When it was confirmed that nitrosamines were  
8 present in cigarette smoke, did RJR undertake any  
9 kind of a campaign to let the public know that  
10 nitrosamines are existent in cigarette smoke?

11 A. No.

12 MR. McDERMOTT: Object to the form of the  
13 question.

14 A. It was all over the -- it was in the  
15 newspapers.

16 Q. R.J. Reynolds never did anything; correct?

17 A. No. All we did was to have a filter that took  
18 90 percent of the ones that were known at that time  
19 out of the smoke.

20 Q. And did you advertise it as such?

21 A. Did we advertise that we took nitrosamines out  
22 of the smoke?

23 Q. Sure. Did you advertise that you were taking a  
24 cancer-producing substance out of the smoke?

25 MR. McDERMOTT: Object to the form of the

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1 question.

2 A. Can you imagine what the FTC would have done to  
3 us if we had?

4 Q. Can you imagine what the smokers would have  
5 done?

6 MR. McDERMOTT: Object to the form of the  
7 question.

8 MR. BLANCATO: Object to the form. Let's  
9 not argue with the witness, please.

10 A. I trust you heard what I said about the filter.

11 Q. I trust you heard what I said about what the  
12 smokers would do.

13 MR. BLANCATO: Let's --

14 MR. McDERMOTT: Object to the form of the  
15 question. You're arguing with the witness.

16 Q. Wasn't it your belief that much of this  
17 research, this biological research, should have been  
18 done in-house at the tobacco companies?

19 A. That's right.

20 Q. You stated so in your 1962 memo; correct?

21 A. That's right.

22 Q. You state "I believe that much of this research,  
23 particularly that" of "the chemical, biochemical and  
24 biological study of tobacco and its smoke, could have  
25 and should have been carried out in the research

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1 departments of ... tobacco companies"; correct?

2 A. That's right.

3 Q. "The members of" the -- "of this Company  
4 Research Department are as qualified, as objective,  
5 and as interested in learning '.. more about these  
6 complex problems.....'as scientists not employed by a  
7 tobacco manufacturer"; correct?

8 A. That's right. That was the whole purpose of the  
9 report. If I may, may I add something, sir?

10 MR. BLANCATO: Yes.

11 Q. I don't have a question pending.

12 A. We had built quite a reputation by 19 -- this  
13 was written at the end of '62. We had built a  
14 tremendous reputation in our capability of defining  
15 the composition of cigarette smoke and tobacco and in  
16 analyses that were applied to tobacco and smoke. It  
17 was my feeling that we could do the same with  
18 biological work, considering my background at the  
19 University of Toronto, and I was really pushing to  
20 get biological work done in-house because a lot of  
21 the stuff out there was garbage.

22 Q. You weren't successful, though, were you, sir?

23 A. Eventually they did it.

24 Q. When?

25 A. 1965.

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C O N F I D E N T I A L

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1 Q. How long did they -- did it last?

2 A. Five years.

3 Q. You shut it down in 1970; right?

4 A. I didn't shut it down.

5 Q. R.J. Reynolds shut it down?

6 A. Yes.

7 Q. And they did it in part because of the  
8 gentlemen's agreement among all the manufacturers not  
9 to do in-house biological research; correct?

10 A. No.

11 MR. McDERMOTT: Object to the form of the  
12 question.

13 A. I don't believe that was the reason.

14 Q. There was that gentlemen's agreement, wasn't  
15 there, sir?

16 MR. BLANCATO: Objection.

17 MR. McDERMOTT: Object to the form of the  
18 question.

19 A. I heard of it, but I don't know for sure.

20 Q. You not only heard of it; you wrote about it in  
21 a paper, didn't you?

22 MR. McDERMOTT: Objection.

23 A. Yes.

24 Q. You stated that there was a gentlemen agreement  
25 among all the tobacco manufacturers not to do

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1 biological research in-house?

2 A. That was a -- I had heard it as a rumor.

3 Dr. Colby had heard more than I had.

4 Q. And the reason was because you were afraid that

5 if you had research in-house showing that your

6 products cause cancer, it wouldn't look good in

7 litigation like this; correct?

8 MR. McDERMOTT: Object to the form of the  
9 question.

10 A. I don't know that, sir.

11 Q. Why don't you look back to your 1962 memo and  
12 look on page six where you state, quote, "If a" --  
13 and it's -- there's a word crossed out -- "company  
14 plead," quote, "'Not guilty' or Not proven' to the  
15 charge that cigarette smoke (or ... its constituents)  
16 is" a something "factor in the causation of lung  
17 cancer or some other disease, can the company  
18 justifiably take the position that publication of  
19 data pertaining to cigarette smoke composition or  
20 properties should be withheld because such data might  
21 affect adversely the company's economic status when  
22 the company has already implied in its plea that no  
23 such etiological effect exists?"

24 A. That's a question I raised.

25 Q. A concern really, isn't it?

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1 A. Yeah. This was written, sir, to try to get a  
2 biological facility, that simple.

3 Q. And the longest you got those biological  
4 facilities was -- well I think you're now testifying  
5 five years. I thought it was three years, but from  
6 some point in time until 1970; correct?

7 A. That's right. And there was a lot of things  
8 done in that biological -- not tobacco, all tobacco  
9 smoke.

10 Q. And then you shut them down? R.J. Reynolds shut  
11 it down?

12 MR. BLANCATO: Objection.

13 MR. McDERMOTT: Object to the form of the  
14 question.

15 Q. You also suggest that "Data available on  
16 cigarette smoke constituents with adverse  
17 physiological effects be published." Was it?

18 A. Eventually.

19 Q. When? When was it published?

20 MR. McDERMOTT: Which bit of data? Object  
21 to the form of the question, vague.

22 MR. O'FALLON: The memo's vague.

23 MR. McDERMOTT: Precisely.

24 A. Well all our polycyclic work, all our phenol  
25 work was eventually presented at meetings, 1965, '66,

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1 '67.

2 Q. Was it all published in journals?

3 A. Some of it.

4 Q. Was all of it published?

5 A. No. By that time everybody and his brother knew  
6 that there were polycyclic hydrocarbons. You've got  
7 to remember up till -- up till Dr. Fieser accepted  
8 the fact polycyclic -- benzpyrene was in smoke,  
9 everything was in limbo.

10 Q. Up until when?

11 A. That was shortly after '57 when Dr. Fieser said,  
12 "Okay, benzpyrene is in smoke."

13 Q. But benzpyrene was just one of the many --

14 A. Well that's the one everybody made a fuss about,  
15 sir.

16 Q. I know, but you identified many, many more.

17 A. Well, if you look back at research on polycyclic  
18 hydrocarbons post 1932, it didn't matter what you  
19 were heating, whether it be tobacco smoke, chicken,  
20 roast beef, gasoline, diesel oil; you got a whole  
21 string of polycyclic hydrocarbons, all of which are  
22 in tobacco smoke.

23 Q. And inhaled directly into the smokers' lungs;  
24 correct?

25 A. It's part of tobacco smoke.

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1 Q. In 1973 RJR conducted research on tobacco that  
2 had been puffed or expanded with Freon; correct?

3 A. That's right.

4 Q. The laboratory that did that was a laboratory  
5 known as IBT; correct?

6 A. That's right.

7 Q. You found in that research that regular tobacco  
8 smoke killed the test animals and in skin painting  
9 studies control tobacco smoke gave tumors in 37.5  
10 percent of the test animals; correct?

11 A. I -- what was -- what was the control figure?

12 Q. Excuse me?

13 A. What was the control figure?

14 Q. I think it was 37.5 percent, the control tobacco  
15 smoke, 37.5 percent tumors.

16 A. That's right. I don't have the figures in my  
17 head.

18 (Plaintiffs' Exhibit 1053 was marked  
19 for identification.)

20 BY MR. O'FALLON:

21 Q. Exhibit 1053 is a document Bates stamp numbered  
22 50101 2655 through 2659. It's dated February 27th of  
23 1973 to Murray Senkus from Dr. Alan Rodgman. Do you  
24 recognize that document?

25 A. Yes, I do.

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1 Q. And this discusses a study that was done or a  
2 couple studies done by IBT?

3 A. That's right.

4 Q. And paid for by RJR; correct?

5 A. That's right.

6 Q. Under number three you state that "Because of  
7 the legal implications of the results,"  
8 parenthetical, "(acute toxicity study: tobacco smoke  
9 produced in air killed the test animals;  
10 skin-painting study: control tobacco smoke gave  
11 tumors in 37.5 percent of the test animals)," you  
12 wanted to postpone submission of those two  
13 manuscripts; correct?

14 A. That's right.

15 Q. Did you?

16 A. Yes. We never did publish them.

17 Q. You never published this information?

18 A. No, because it all came out the same way in the  
19 National Cancer Institute study.

20 Q. But don't you think it would make a great deal  
21 of difference if RJR came out and said, "Yes, in our  
22 skin painting studies we're also finding that our  
23 control cigarettes, our regular cigarette smoke,  
24 produces tumors in 37.5 percent of the animals"?

25 A. Well there was a problem that occurred at this

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1 time that had nothing to do with our study, but the  
2 people at Industrial Bio-Test got into all sorts of  
3 trouble with the federal government about results on  
4 some agricultural chemical.

5 Q. But that's not mentioned anywhere here?

6 MR. McDERMOTT: Objection. Let him finish  
7 his answer.

8 MR. O'FALLON: I think he's done.

9 THE WITNESS: No, I'm not done, sir.

10 A. And the fact that because of this hassle with  
11 the federal government, IBT was essentially disbanded  
12 and the people that I would have been writing these  
13 reports with, the authors and coauthors, were gone.

14 Q. What year did that take place?

15 A. '74, '75, somewhere in there.

16 Q. '77 maybe?

17 A. I'm not sure of the exact date.

18 Q. You're not sure of the exact date? It could  
19 have been a fair amount of time after this 1973  
20 study, couldn't it?

21 A. Could have been, yeah.

22 Q. Nowhere in this 1973 study do you mention that  
23 as a reason why you want to suppress this particular  
24 information, do you?

25 MR. BLANCATO: Object to the form.

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1                   MR. McDERMOTT: Object to the form of the  
2 question.

3 A. I didn't -- don't think I've said anything about  
4 suppressing.

5 Q. Well postpone submission, that's not  
6 suppressing?

7                   MR. ZIRLIN: That's right, it's not  
8 suppressing.

9 A. If I understand the English language, I don't  
10 think postponing is suppressing.

11 Q. Well how about never publishing?

12 A. As I said, we had the problem with all the staff  
13 being all over the country.

14 Q. And you can't --

15                 And you can't tell me when that particular  
16 problem occurred?

17 A. '76, '77. I'm not sure of the exact date, sir.

18 Q. The fact of the matter is at this time you  
19 didn't want this information published because you  
20 didn't want RJR to have to face the legal  
21 implications of this research; correct?

22 A. Well if you look at the rest of it, you'll see  
23 that I'm saying let's write a fourth manuscript that  
24 will make the first three better to explain things.

25 Q. You never did that either, did you?

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1 A. No.

2 Q. Was it usually RJR's typical procedure that when  
3 it contracted for research, it wrote the reports, not  
4 the research institution?

5 A. No, we didn't write them.

6 Q. Well that's what you're doing here? You're  
7 revising these reports and telling IBT what they can  
8 and can't do with the information; right?

9 MR. McDERMOTT: Object to the form of the  
10 question. You're mischaracterizing this.

11 A. We never told them what to do with it.

12 Q. You're giving them revisions, aren't you?

13 A. Well if you read the rest of it, sir, what I was  
14 trying to do was to get the smoke work published, and  
15 it would -- I felt it would make their explanations  
16 of the biological work so much simpler if they could  
17 say, "Well here's -- here are the biological  
18 findings, here are the chemical findings and how they  
19 mesh together."

20 Now when you come down to what is published and  
21 what is not published, I'm sure you're aware that we  
22 presented to many, many people our total work on puff  
23 tobacco all over the world.

24 Q. Well you presented to a lot of people in the  
25 industry. Did you present it to the public?

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1 A. Not the public, but we did submit it to the  
2 Hunter Committee.

3 Q. That's in England; that's not in America.

4 A. Well the Hunter Committee is a hell of a lot  
5 stricter -- pardon my language -- than most things in  
6 this country with regard to tobacco, and they  
7 accepted it, period.

8 Q. But the point here isn't about the Freon. The  
9 point here is about the fact that your control  
10 cigarettes are producing tumors in 37.5 percent of  
11 the animals. That's what you're really concerned  
12 about, isn't it?

13 MR. BLANCATO: Object to the form of the  
14 question.

15 A. Everybody who had ever done an animal experiment  
16 with skin painting at the level used in the NCI study  
17 or by Ernst Wynder, whatever the cigarette, got skin  
18 tumors.

19 Q. Or by you, or by R.J. Reynolds through IBT;  
20 correct?

21 A. Yeah. I said everybody who did it. That  
22 includes us. And of course if you look at  
23 Dr. Wynder's work, what was he saying in 1957? If  
24 you reduce the tar delivery, the mouse numbers go  
25 down and you've got a safer cigarette. And that's

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1 what we were doing here.

2 Q. Do you believe as we sit here today that there  
3 is such a thing as a, quote, "safer cigarette"?

4 A. If you use the definition by Dr. Wynder --

5 Q. I'm not -- I'm not asking about Dr. Wynder's  
6 definition.

7 MR. McDERMOTT: Let the witness answer the  
8 question as you've posed it.

9 A. If you use the definition by Dr. Wynder and NCI  
10 that cigarette A is safer than B, that is possible.

11 Q. Do you believe as we sit here today that there  
12 is -- that there is on the market a safe cigarette;  
13 that is, a cigarette that doesn't produce any health  
14 effects, adverse health effects, in a human being?

15 MR. McDERMOTT: Object to the form of the  
16 question.

17 A. I believe there is.

18 Q. And what's the name of that cigarette?

19 A. I couldn't give you a name.

20 Q. All of them? Do you believe all the cigarettes  
21 are healthy, safe?

22 A. I don't believe they're harmful.

23 Q. Does that mean that you believe they're all  
24 healthy and safe?

25 MR. BLANCATO: Objection.

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1 A. Well I'll say yes.

2 Q. How come you don't smoke?

3 A. I used to smoke.

4 Q. Why'd you quit?

5 A. Oh, I did -- got not liking the taste.

6 Q. How long ago did you quit?

7 A. 1988. I quit between '57 and '64 too.

8 Q. Why don't you look at the last page of this  
9 particular document. This is listed under the cons  
10 to publishing your skin painting study that was done  
11 at IBT. Number one, you state "Cons," "To  
12 demonstrate the favorable biological properties of  
13 expanded tobacco smoke, one has to publish the  
14 biological data for the control smoke."

15 A. Uh-huh.

16 Q. "As mentioned previously, it is probably widely  
17 known that RJR contracted this study at IBT. Thus,  
18 we would be more or less on record as having funded a  
19 study in which control tobacco smoke" -- and you  
20 underline that -- "was shown to be carcinogenic to a  
21 relatively high percentage (37.5 percent) of the mice  
22 tested in skin-painting"; correct?

23 A. Right.

24 Q. And you believed that was one reason that RJR  
25 shouldn't publish the study; correct?

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1 A. Well that was one of the problems with doing  
2 this kind of study, where you're following somebody's  
3 definition of a less-hazardous cigarette.

4 Q. And you in fact didn't publish this study;  
5 correct?

6 A. That's right. And when you have a definition  
7 that requires you to have a control, obviously  
8 anti-tobacco people are going to jump all over you  
9 and say that.

10 Q. Especially if it appears that that control is  
11 producing cancer; correct?

12 A. But how can you define a less-hazardous  
13 cigarette by the definition of Wynder and Hoffmann  
14 without -- that's right in the definition, sir.

15 Q. So in other words, how can you define a  
16 less-hazardous cigarette if you don't admit from the  
17 outset that the cigarettes you have are hazardous;  
18 correct?

19 A. No, that's not the definition.

20 Q. But that is --

21 A. Do you know what the definition is, sir?

22 Q. But that is the paradox, isn't it, sir?

23 A. No, it isn't. The definition of a  
24 less-hazardous cigarette is one that's -- one that's  
25 less tumorigenic than the other, one that has less

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1 specific ingredients per unit of tar than another.

2 That's not our definition.

3 MR. O'FALLON: Move to strike everything

4 after, "No, it isn't."

5 Why don't we take our break for lunch.

6 THE REPORTER: Off the record, please.

7 (Discussion off the stenographic record.)

8 MR. LEE: Could we have to look at the  
9 matters subpoenaed in the Arch case and probably in  
10 the Minnesota to look at during lunch to see what's  
11 been produced and then be able to at least discuss  
12 what's not being produced, including his book on  
13 nitrosamines that is being produced under the Arch  
14 subpoena, I understand, and you have it with you?

15 THE WITNESS: Uh-huh.

16 MR. LEE: Is it in the room or is it  
17 downstairs?

18 THE WITNESS: I don't know where it is.

19 MR. BLANCATO: It's downstairs.

20 MR. O'FALLON: Let me just -- let me just  
21 make my record clear here. I'm not part of that and  
22 for right now this is still my deposition, and  
23 whatever you want to do with these folks off the  
24 record, that's fine, but I don't want this counted  
25 against my time or as part of my part of the

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1 deposition.

2 MR. LEE: That's why I was asking during  
3 the break.

4 MR. O'FALLON: So why don't we go off the  
5 record.

6 MR. BLANCATO: Let's go off the record.

7 THE REPORTER: Off the record, please.

8 (Luncheon recess taken at 12:10 o'clock  
9 p.m.)

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1                           AFTERNOON SESSION

2                           (Deposition reconvened at 1:15 o'clock  
3                           p.m.)

4                           (Plaintiffs' Exhibit 1054 was marked  
5                           for identification.)

6 BY MR. O'FALLON:

7 Q. Dr. Rodgman, we've marked as Exhibit 1054 a  
8 document that's Bates stamp numbered 50154 3470  
9 through 3517.

10                  Do you recognize that document?

11 A. Yes, I recognize it.

12 Q. Okay. This is a document that was drafted by  
13 you and Mr. Colby; correct?

14 A. Dr. Colby.

15 Q. You and Dr. Colby; correct?

16 A. Yes.

17 Q. In March of 1983?

18 A. It -- yes, that's right.

19 Q. The front of this one is entitled  
20 "BIOLOGICAL/CONSUMER PREFERENCE RESEARCH CONDUCTED

21 BY PHILIP MORRIS"; correct?

22 A. That's right.

23 Q. And in general, this is a document that talks  
24 about Philip Morris's research and compares it to  
25 RJR's research; correct?

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1 A. The specific area.

2 Q. Well on numerous specific areas if you look  
3 through the document; right?

4 A. Yes.

5 Q. Please look at Bates number 472.

6 A. 472.

7 Q. Do you have that in front of you?

8 A. Is that the one that has "PM HAS BEEN VERY  
9 ACTIVE" at the top?

10 Q. Yes.

11 A. Okay.

12 Q. I'd like you to look at the third full paragraph  
13 and towards the last of the -- of the third full  
14 paragraph where it says, quote, "IN MY CASE, 19  
15 PUBLICATIONS PLUS A PATENT REPRESENTED ABOUT 21  
16 PERCENT OF MY INTERNAL REPORT PRODUCTION." Is this  
17 referring to your own particular report production at  
18 RJR and the portion of that that was actually  
19 published?

20 A. Yes.

21 Q. Okay. And if we look on page 474, does that  
22 help clarify that?

23 A. Yes.

24 Q. Where this indicates that from 1956 to 1973 you  
25 had a total of 91 internal reports, but of those only

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1 18 publications and 1 patent; correct?

2 A. That's right.

3 Q. Among those publications, did you include all of  
4 the studies that we've discussed concerning the  
5 identify -- identification of carcinogenic agents in  
6 cigarette smoke?

7 A. Not in the publications.

8 Q. So they would be among the 91 internal documents  
9 that were not published; correct?

10 A. Well they -- that's right.

11 Q. What you're specifically referring to in this  
12 document both on page 472 and 474 is what's called an  
13 iceberg effect, and that is what you're talking about  
14 is the fact that Philip Morris has only a certain  
15 amount published would indicate that they have  
16 probably a great deal more internal documents;  
17 correct?

18 A. Yes, that's right. I think the -- on page 74  
19 it's got 6 versus 30.

20 Q. Right, for -- and that's Dr. Schori over at  
21 Philip Morris?

22 A. That's right.

23 Q. Then you've got 10 publications for  
24 Dr. Schumacher and 84 internal reports?

25 A. That's right.

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1 Q. Okay. Let's go back real quickly to page 472.  
2 You state in the fifth paragraph that "PHILIP MORRIS  
3 HAS HAD IN-HOUSE ANIMAL FACILITIES OR ACCESS TO SUCH  
4 FACILITIES SINCE 1968, PERHAPS SINCE 1966; RJR HAD  
5 IN-HOUSE ANIMAL FACILITIES FOR ABOUT THREE YEARS,  
6 DISBANDING THEM IN 1970."

7 A. That's right.

8 Q. Okay. Is that the research that you were  
9 talking about earlier today, the in-house  
10 facilities? You originally talked about a five-year  
11 period.

12 A. Well, it may appear like five years, but you  
13 have to hire a staff and get the facility, which was  
14 a little building close to the -- set up the  
15 equipment, get the thing started. So some of the  
16 people started coming in about '65, but actually they  
17 worked probably those three -- closer to three  
18 years.

19 Q. Okay. So this statement on page 472 would be  
20 accurate, that RJR had in-house animal facilities for  
21 about three years?

22 A. That's right.

23 Q. And what kind of in-house animal facilities did  
24 RJR have at that time?

25 A. Well mice, rats, cats.

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1 Q. Anything else that you can recall?

2 A. I don't -- no, not really. I -- I don't know  
3 what other animals, if any.

4 Q. Okay. Let's turn to page 3504.

5 A. I may add, if I can or may, that during that  
6 three years there were a lot of things went on that  
7 were not pertaining to tobacco.

8 Q. So not all of that research was related to  
9 tobacco research?

10 A. No.

11 Q. Okay.

12 A. About probably less than half of it.

13 Q. If you look on page 504 --

14 A. Okay.

15 Q. -- about midway down, this particular page is  
16 talking about smoking-and-health-related research;  
17 correct?

18 A. Right.

19 Q. Specifically, you're talking about  
20 smoking-and-health-related research conducted by  
21 Philip Morris; correct?

22 A. Uh-huh.

23 Q. You state about halfway down, quote, "THROUGHOUT  
24 THE DOMESTIC INDUSTRY, TWO," quote, "'GENTLEMEN'S,'"  
25 end quote, "AGREEMENTS WERE OPERATIVE IN THE EARLY

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1 DAYS:" Number one, "ANY COMPANY DISCOVERING AN  
2 INNOVATION PERMITTING THE FABRICATION OF AN  
3 ESSENTIALLY," quote, "'SAFE,' " end quote, "CIGARETTE  
4 WOULD SHARE THE DISCOVERY WITH OTHERS IN THE  
5 INDUSTRY"; correct?

6 A. That's right.

7 Q. Number two, "NO DOMESTIC COMPANY WOULD USE  
8 INTACT ANIMALS IN-HOUSE IN BIOMEDICAL RESEARCH";  
9 correct?

10 A. That's right. If I -- may I say something about  
11 the first one?

12 Q. Your counsel can ask you any questions they want  
13 to clarify these documents later on.

14 A. Okay.

15 Q. Isn't it true that at some point Philip Morris  
16 discovered that R.J. Reynolds was doing in-house  
17 biological research?

18 A. I don't know.

19 (Plaintiffs' Exhibit 1055 was marked  
20 for identification.)

21 BY MR. O'FALLON:

22 Q. I'm handing you a document that's been marked as  
23 Exhibit 1055 that's a document produced by B.A.T.  
24 Company Ltd. in the Minnesota litigation. It's Bates  
25 stamp numbered 110315968 through 971.

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1           Have you seen this document previously?

2 A.     No, I haven't.

3 Q.     Okay. Would you like a moment to review it?

4 A.     Yes, please.

5           Is this dated 1970?

6 Q.     Yes, it is.

7 A.     Okay.

8           Okay.

9 Q.     This document is dated at the back September  
10 16th, 1970, and it appears to refer, as it states on  
11 the front, to a meeting with Dr. Helmut Wakeham, vice  
12 president and director of research, Philip Morris,  
13 Inc., 10 September 1970; correct?

14 A.     Uh-huh.

15 Q.     And you knew Dr. Wakeham?

16 A.     Yes, I knew Dr. Wakeham.

17 Q.     You knew he was involved at -- in research at  
18 Philip Morris?

19 A.     He was vice president of research of Philip  
20 Morris and he was also -- attended a lot of the NCI  
21 Tobacco Working Group meetings.

22 Q.     The second page of this document under "Philip  
23 Morris Affairs" states that, quote, "One result of  
24 the greater influence which Wakeham has with Mr. J.  
25 Cullman has been the agreement, albeit reluctant, to

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1 permit Philip Morris to do 'in-house' biological  
2 work. When this was first mooted, Wakeham was told  
3 that there was a tacit agreement" among "the heads of  
4 the US Companies that this would not be done";  
5 correct?

6 A. That's what it says.

7 Q. That's the same as this tacit agreement or  
8 gentlemen's agreement that you're referring to in  
9 your document; correct?

10 MR. McDERMOTT: Object to the form of the  
11 question.

12 A. Well it's the same kind of thing except we  
13 didn't know it was a fact when we put that in there.

14 Q. It then says that "Wakeham" has -- "had  
15 countered by saying he knew that Reynolds, Lorillard  
16 and American were all undertaking some and that  
17 Liggett and Myers had never been party to the  
18 agreement. Cullman had been incredulous and had  
19 phoned Galloway, the President of R.J. Reynolds  
20 who ... denied Reynolds" was "doing any bioassay."

21 And in 1970 you were doing some bioassay; correct?

22 A. Not in September.

23 Q. No, but earlier in 1970 you were; correct?

24 A. We had the -- our facility that you already know  
25 about from '64, sixty -- '66, '67, '68.

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1 Q. Okay. It then goes on to state that "When  
2 Cullman" -- and do you know who Cullman was?

3 A. I guess he was the CEO of Philip Morris or  
4 somebody.

5 Q. It says "When Cullman had told Wakeham this,  
6 Wakeham's response had been to quote the Reynold's  
7 work on the Senkus smoking machine and to claim that  
8 he had floor plans showing outline" -- "showing  
9 outline area allocations"; correct?

10 A. That's what it says, but you -- I mean, I don't  
11 know what Wakeham's point is. Our doing away with  
12 the bio -- the biological work and quite a few people  
13 at that time was all over the newspaper, was in the  
14 American Chemical Society's journal, Chem Engineering  
15 News, so it wasn't a great big secret that we had  
16 been doing it for some time and was -- it was gone.

17 Q. He then says "This too" -- well at the time  
18 Wakeham's relaying this, though, of course the  
19 research is still ongoing; correct?

20 A. No.

21 MR. McDERMOTT: Object to the form of the  
22 question. It's not -- I mean, this is triple hearsay  
23 at least, if not quadruple.

24 MR. O'FALLON: "Objection" is sufficient.

25 Okay?

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1 Q. It says "This too had been relayed" by -- "to  
2 Galloway by Cullman, incredible though it may seem,  
3 and Galloway had visited the Reynolds Research" to  
4 find -- "Department to find it was substantially  
5 true," that they were doing research; correct?

6 MR. McDERMOTT: Correct, that's what it  
7 says?

8 MR. O'FALLON: Yes.

9 MR. McDERMOTT: Objection, hearsay.

10 A. I don't know what Dr. Wakeham's point is here.

11 Q. Is that what that sentence says, sir, that  
12 Galloway had visited Reynolds' research department --

13 A. That's what the sentence says.

14 Q. Okay. And Galloway was the president of RJR;  
15 correct?

16 A. I don't know what he was, CEO or something.

17 Q. Okay. Do you ever recall Galloway coming down  
18 and looking at your facilities?

19 A. I was never -- other than an occasional visit, I  
20 was never in the bio place.

21 Q. Okay.

22 A. I might -- sir, may I say something about the  
23 Senkus smoking machine?

24 Q. I haven't really asked a question about that.

25 A. Well okay. Well I think you should know that

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1 this was sort of a contest of who could design the  
2 best smoking machine at the request of the Council  
3 for Tobacco Research. Lorillard had one, we had one,  
4 and the one they ended up with was a machine called  
5 the Walton machine.

6 Q. Move to strike as nonresponsive.

7 It says "There had" then "been a sudden  
8 reorganization at Reynolds, resulting in the closure  
9 of the biological section, the severance of product  
10 development (which remained with the tobacco  
11 division) from the research department (which became  
12 a corporate activity) and ultimately the resignation  
13 of Dr. Eldon Neilson, who had been in charge of  
14 biology"; correct?

15 A. That's what it says.

16 MR. McDERMOTT: Object to the form of the  
17 question, multiple hearsay.

18 Q. And are those facts true, that in fact R.J.  
19 Reynolds did close its procedure -- its facilities,  
20 that there was a severance of product development  
21 from the research department and that Dr. Eldon  
22 Neilson was let go?

23 MR. McDERMOTT: Objection to the question,  
24 compound.

25 A. He wasn't let go.

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1 Q. He was not let go?

2 A. No.

3 Q. He remained with the company?

4 A. No, he resigned.

5 Q. Did he resign at R.J. Reynolds' request?

6 A. I don't know.

7 Q. Do you know why this research facility was shut

8 down?

9 A. The -- there was a lot of things going on. The  
10 biological part of -- this biological research part  
11 was being used to do three or four things: One,  
12 there was a project on what was called the isomerase  
13 project, which was the conversion of glucose to  
14 what's known as liquid sugar, which is in your Cokes  
15 and so on, so forth. Another one was there were some  
16 compounds we had discovered synthesized that were  
17 cholesterol lowering -- lowering. They were going  
18 on. There was of course some tobacco and smoke work  
19 and like -- things like this that -- here I'm just  
20 making an estimate because I wasn't that closely  
21 involved, but I would say probably less than half of  
22 the facility was devoted to tobacco smoke research.

23 Q. But you're not positive of that; correct?

24 A. Well I'd say it's plus or minus 10 percent. The  
25 other thing was the design of this fancy smoking

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1 machine for inhalation, which you had to have  
2 biologists helping the mechanics and designers of  
3 smoking machines to make sure that the smoking  
4 machine was -- did what it was supposed to do.

5 Q. When did R.J. Reynolds again reinstitute  
6 biological testing?

7 A. 1983. Of course in the interim we were doing  
8 contract -- had contract work done.

9 Q. But the contract work wasn't prohibited by the  
10 gentlemen's agreement; correct?

11 MR. McDERMOTT: Object to the form of the  
12 question.

13 A. As I say, all I knew about was the rumor that  
14 this was. I'd never seen anything in writing about  
15 this gentlemen's agreement.

16 Q. Well there may not be anything in writing;  
17 correct?

18 A. Right.

19 Q. The fact of the matter is you knew enough about  
20 it to put it in an internal corporate document;  
21 correct?

22 MR. McDERMOTT: Object to the form of the  
23 question.

24 A. This document was written to say to management,  
25 like the '62 document, to reinstate biology, which

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1 was done. As a result of this report, we got back  
2 into biological work.

3 Q. But from at least 1970 to 1983 you abided by the  
4 gentlemen's agreement; correct?

5 MR. McDERMOTT: Object to the form of the  
6 question.

7 A. We contracted everything out.

8 Q. Which would not have violated the gentlemen's  
9 agreement; correct?

10 MR. McDERMOTT: Object to the form of the  
11 question.

12 A. Well when we got rid of the bio bunch, it was  
13 much cheaper and easier to get it contracted.

14 Q. And also conform with the gentlemen's  
15 agreement?

16 MR. McDERMOTT: Object to the form of the  
17 question.

18 A. I had nothing to do with whatever the  
19 conformation was there, so I don't know quite what  
20 you're talking about.

21 (Plaintiffs' Exhibit 1056 was marked  
22 for identification.)

23 BY MR. O'FALLON:

24 Q. I've marked as Exhibit 1056 a document Bates  
25 stamp numbered 50154 1374 through 50154 1379. Do you

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1 recognize that document?

2 A. Yes.

3 Q. This is a document that's dated April 16th,  
4 1982. It's to a Mr. G. R. -- or a Dr. G. R. DiMarco  
5 from four individuals, including yourself; correct?

6 A. That's right.

7 Q. And what you're basically asking in this memo is  
8 to reinstate some medical research and to have more  
9 control over medical research in the research  
10 department; correct?

11 A. That's right. Dr. DiMarco had just come on  
12 board as the vice president of R&D.

13 Q. And one of the things you talk about in the  
14 second paragraph under the first bullet point is that  
15 R.J. Reynolds Tobacco research and development  
16 personnel need to be more intimately involved in  
17 decisions about, discussions and monitoring of the  
18 progress of this research; correct?

19 A. Right.

20 Q. And that's because in the past these activities  
21 have been limited to RJR legal personnel; correct?

22 A. That's what it says.

23 Q. Is it fair to state that prior to 1982 it was  
24 RJR legal considerations, including liability in  
25 cigarette smoking-and-health cases such as this, that

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1 were driving the research projects that were  
2 undertaken by RJR?

3 MR. McDERMOTT: Object to the form of the  
4 question. It misstates this document.

5 A. Would you say that again, sir.

6 Q. Is it fair to state that prior to 1982 it was  
7 RJR legal personnel and legal considerations,  
8 including liability for cigarette smoking-and-health  
9 cases, that drove the research projects that were  
10 undertaken by RJRT?

11 A. That's not true, and the reason I say that is if  
12 you look at the research we did starting in the late  
13 '50s, in fact starting long before the late '50s,  
14 that I'm sure you're aware of the technologies that  
15 are supposed to be significant in a less-hazardous  
16 cigarette. There are eight of them, and seven of  
17 them came out of R.J. Reynolds.

18 Q. And just so we're clear, from 1954 until 1982,  
19 RJR only conducted three years of biological research  
20 in-house; correct?

21 A. That's right.

22 Q. Let's go back for a second to the Frank  
23 Statement, A Frank Statement to Smokers. I'd like  
24 to -- I'd like you to look at the third column where  
25 it starts out by saying, quote, "Many people have

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1 asked us what we are doing to meet the public's  
2 concern aroused by the recent reports," and then they  
3 go give the answer; correct?

4 A. That's what it says.

5 Q. One of the things they're going to do is form  
6 something known as the Tobacco Industry Research  
7 Committee; correct?

8 A. Right.

9 Q. Is that the predecessor of what's now The  
10 Council for Tobacco Research?

11 A. That's right.

12 MR. ZIRLIN: Object to the form of the  
13 question.

14 Q. And three, it says "In charge of the research  
15 activities of the Committee will be a scientist of  
16 unimpeachable integrity and national repute";  
17 correct?

18 A. That's what it says.

19 Q. It says "In addition there will be an Advisory  
20 Board of scientists disinterested in the cigarette  
21 industry"; correct?

22 A. Uh-huh.

23 Q. "A group of distinguished men from medicine,  
24 science and education will be invited to serve on  
25 this Board"; correct?

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1 A. That's right.

2 Q. "These scientists will advise the Committee on  
3 its research activities"; correct?

4 A. That's what it says.

5 Q. Nowhere does it state in there that much of the  
6 research will be directed by attorneys; correct?

7 A. That's right.

8 Q. Nowhere in there does it indicate that attorneys  
9 will have any part in the research undertaken by the  
10 TIRC and later the CTR; correct?

11 A. Doesn't say anything about that.

12 Q. At some point attorneys did start to have a  
13 great deal of influence in the projects undertaken by  
14 CTR; correct?

15 A. I don't know that.

16 MR. McDERMOTT: Objection, no foundation.

17 A. I don't know that.

18 Q. You don't know the answer to that question?

19 A. No.

20 Q. It wasn't your understanding that at some point  
21 the lawyers from Shook, Hardy & Bacon and Jacob  
22 Medinger, who had been longtime tobacco litigation  
23 attorneys, set up something known as the Special  
24 Projects Committee?

25 A. I don't know anything about that.

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1 Q. You don't know anything about that. Why don't  
2 we take a look at the last page of the exhibit that's  
3 been marked as, I believe, 1055.

4 MR. CRIST: 56.

5 Q. 1056. Do you see Appendix A of that document at  
6 the end? This document states that "Two types of  
7 projects" -- well first of all, it's called "APPENDIX  
8 A, CURRENT SMOKING-HEALTH RESEARCH VEHICLES"; right?

9 A. Right.

10 Q. And this again is an appendix to the document  
11 that you were one of the authors of concerning  
12 Smoking-Health Research Program in 1982; correct?

13 A. I was one of the authors, right.

14 Q. It states "Two types of projects are funded  
15 by ... Council for Tobacco Research. There are also  
16 plans under consideration by RJRT to commit  
17 substantial funds to fundamental research on diseases  
18 alleged to be associated with smoking." It then goes  
19 on to say "The most important effort by the American  
20 Industry is made through the Council for Tobacco  
21 Research-USA in New York. This organization handles  
22 generally two types of projects: a) General projects  
23 approved by an independent peer review" of  
24 scientists -- "peer review group of scientists, the,"  
25 quote, "'Scientific Advisory Board'" and "b) Special

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1 projects generally initiated, discussed and approved  
2 by Industry counsel and/or outside litigating"  
3 firms -- "attorneys from firms such as Jacob,  
4 Medinger & Finnegan and Shook, Hardy & Bacon";  
5 correct?

6 A. Yeah.

7 Q. In other words, a great deal of the research  
8 done by CTR was being directed by attorneys who were  
9 defending the industry from allegations that smoking  
10 caused cancer and other diseases; correct?

11 A. I didn't know that at that time.

12 Q. You were on this document at this time, weren't  
13 you?

14 A. Well that's what -- I learned about it, but if  
15 you'll notice, it's an appendix.

16 Q. But I assume you had an appendix on your copy of  
17 the document.

18 A. Oh, yeah. I -- at the time this was written, I  
19 did not know that.

20 Q. So you're saying in 1982 is the first time that  
21 you learned that lawyers were directing CTR  
22 research?

23 MR. McDERMOTT: Object to the form of the  
24 question.

25 MR. ZIRLIN: Object to form.

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1 A. All I know is this -- that last paragraph was  
2 written by Dr. Colby. That's all I knew about.

3 Q. Do you have any reason to doubt it?

4 A. I have no reason to believe it either.

5 Q. Really? Is Mr. Colby not a person who's  
6 generally truthful?

7 A. No, he's probably one of the highest-integrity  
8 men I've ever met.

9 Q. So if he wrote this, it's true; correct?

10 MR. BLANCATO: Object to the form.

11 MR. McDERMOTT: Object to the form.

12 Q. Correct?

13 A. I would assume it would be.

14 Q. As a matter of fact, Mr. Colby at the time he  
15 wrote this was actually working with Jacob,  
16 Medinger & Flannigan, one of the law firms mentioned;  
17 correct?

18 MR. McDERMOTT: Object to the form of the  
19 question.

20 MR. ZIRLIN: Object to the form of the  
21 question. It's Finnegan, not Flannigan.

22 MR. O'FALLON: Finnegan.

23 MR. McDERMOTT: Well I have other  
24 objections.

25 MR. ZIRLIN: I did too, but --

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1 A. I don't know. I'd have to think. Let's see.

2 No, he wasn't. He was working for R.J. Reynolds.

3 Q. When did he go to work for Jacob Medinger?

4 A. I don't know whether he ever did. As I

5 remember, he retired in 1983 from R.J. Reynolds.

6 Q. So at the time he wrote this, he was still

7 working at R.J. Reynolds; correct?

8 A. Obviously.

9 Q. Do you know whether RJR ever took out an  
10 advertisement and told the public that contrary to  
11 what they stated in 1954 that research being done  
12 through TIRC -- TIRC and its predecessor, Council for  
13 Tobacco Research, was actually not being done by just  
14 independent scientists and a scientific board but was  
15 in fact being formulated by attorneys who were  
16 defending the industry from litigation?

17 MR. McDERMOTT: Object to the form of the  
18 question, misstates the contents of this document.

19 MR. ZIRLIN: Object to the form of the  
20 question.

21 A. As far as I know, they never advertised.

22 Q. Don't you think that's something the public  
23 would want to know?

24 MR. McDERMOTT: Object to the form of the  
25 question.

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1 A. I have no idea.

2 Q. Didn't the tobacco industry continue to maintain  
3 and advertise The Council for Tobacco Research as an  
4 independent research body?

5 MR. ZIRLIN: Object to the form of the  
6 question.

7 A. I don't know whether they did or not.

8 Q. In your experience, they weren't; correct?

9 MR. McDERMOTT: Object to the form of the  
10 question, misstates prior testimony.

11 A. They weren't what?

12 Q. They weren't independent, they weren't  
13 scientifically independent. They were also forced to  
14 answer to lawyers who were litigating the  
15 smoking-and-health issues?

16 MR. ZIRLIN: Object to the form of the  
17 question.

18 MR. McDERMOTT: I object to the form of the  
19 question, misstates prior testimony, states facts  
20 that aren't in the record, states facts that aren't  
21 true.

22 MR. O'FALLON: You know, sir, "objection"  
23 covers all of that. If you'll look at the Minnesota  
24 rules and if you'll look at the orders that have been  
25 applicable to this case and which you're required to

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1 read as a pro hac admissitee in this case, you will  
2 find that the word "objection" covers all of that.  
3 So let's keep it to "objection," and if you've got  
4 one basis or one or two words, state it.

5 MR. TOWNSEND: Unfortunately we've been  
6 cross-noticed in the state of Tennessee.

7 MR. O'FALLON: No, no more. You're in the  
8 Minnesota deposition right now.

9 MR. TOWNSEND: We've been cross-noticed in  
10 this deposition in a Tennessee case, and I don't know  
11 how or why that occurred, but we were, and we have to  
12 states the grounds of our objection.

13 MR. O'FALLON: You're in a Minnesota --  
14 sir, you're in a Minnesota-subpoenaed deposition  
15 right now, and you're going to follow the orders of  
16 my court.

17 MR. ZIRLIN: You get a judge on the phone  
18 who tells us that, because we were cross-noticed in  
19 Arch.

20 MR. O'FALLON: Fine. I'll do that right  
21 now.

22 MR. ZIRLIN: Go ahead.

23 MR. BLANCATO: Whose time is this allocated  
24 to?

25 MR. O'FALLON: We're going to go off the

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1 record.

2 THE REPORTER: Off the record, please.

3 (Discussion off the record.)

4 MR. LEE: As I understand, that one  
5 objection, without the speaking objection, but with  
6 one objection, it will apply to all three actions,  
7 including the Minnesota case that we're doing the  
8 deposition under and the rules we're operating under  
9 it; it will apply to Arch and to Perry, the Tennessee  
10 case; and that the plaintiff waives the defendant  
11 having to explain his -- his objection in this  
12 deposition, that that is waived for the time being  
13 and reserved, rather, it's not waived, it's reserved  
14 to any hearing on the deposition itself.

15 MR. TOWNSEND: You'll agree the Tennessee  
16 rule requires me to state the grounds, not speaking,  
17 and you waive that requirement?

18 MR. LEE: Yes.

19 MR. TOWNSEND: With that stipulation, so be  
20 it.

21 MR. O'FALLON: And I'm going to state for  
22 the record that it's been our position since the  
23 beginning of this litigation and the fact that the  
24 cross-noticing was put in the orders that it is up to  
25 counsel for the defendant to make sure that parties

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1 who show up at these depositions, which are Minnesota  
2 depositions, will comply with the orders of the  
3 Minnesota court. If that's not going to happen and  
4 if we're going to have to spend time on the record  
5 dealing with people who want to make other objections  
6 from other locations, then this issue's going to go  
7 before the court and we're going to ask for relief  
8 because there is no reason that in our cases that we  
9 should have to do this. We are doing this in large  
10 part, allowing the cross-noticing, as a convenience  
11 to the defendants, and while Mr. McDermott may point  
12 out that all of this bickering may waste a lot of  
13 time of Dr. Rodgman, the fact that I have to go  
14 through and try to get compliance with a court order  
15 that's been entered in my litigation by our court  
16 wastes our time as well.

17           And this stuff should have been handled before  
18 we ever stepped foot in here today. I don't see any  
19 reason in the world why counsel for RJR, national  
20 counsel for RJR, Jones Day, can't call up their  
21 counsel in Tennessee and get this all worked out.

22           MR. McDERMOTT: We are attempting to make a  
23 reasonable accommodation for a variety of interests  
24 that are involved here. I think with a little bit of  
25 goodwill, only a modest amount of which has been in

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1 evidence, we can work out these problems. I suggest  
2 you proceed, Counsel.

3 (Discussion off the stenographic record.)

4 MR. O'FALLON: Would you read the last  
5 pending question.

6 (Read record by the court reporter.)

7 MR. O'FALLON: Why don't you go back and  
8 grab the question before that so we have the context.

9 (Read record by the court reporter.)

10 MR. O'FALLON: Let me go back and restate  
11 the question.

12 BY MR. O'FALLON:

13 Q. In your experience, CTR in at least some of its  
14 projects were forced to answer to lawyers who were  
15 defending the tobacco industry; correct?

16 A. I don't know that. I was involved with CTR on  
17 its Industry Technical Committee for some years, but  
18 after about 1960 I had very little to do with CTR.

19 Q. Did you say "after 1960"?

20 A. About 1960, '61 or something like that.

21 Q. By the way, the document that we've now had  
22 marked as, I believe, 1056, is that a document that  
23 you generated in the ordinary course of business?

24 A. Which, this, 10 -- yeah. This was --

25 Dr. DiMarco had just come aboard as the new vice

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1 president of R&D.

2 Q. And you wrote this document in the ordinary  
3 course of your business; correct?

4 A. Yes, that's right.

5 Q. And it was maintained in the ordinary course of  
6 your business; correct?

7 A. That's right.

8 Q. Dr. Rodgman, do you agree that the tobacco  
9 industry may be thought of as being a specialized,  
10 highly ritualized and stylized segment of the  
11 pharmaceutical industry?

12 A. No, I don't.

13 Q. You would agree that tobacco products uniquely  
14 contain and deliver nicotine, a potent drug with a  
15 variety of physiological effects; correct?

16 A. Say that again, sir.

17 Q. Sure. You would agree that tobacco products  
18 uniquely contain and deliver nicotine, a potent drug  
19 with a variety of physiological effects?

20 A. Yeah, I'd agree to that.

21 Q. Nicotine is known to be a habit-forming  
22 alkaloid; correct?

23 A. It was described in the certain '64 Surgeon  
24 General's report as a habituating agent.

25 Q. And hence, the confirmed user of tobacco

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1 products is primarily seeking the physiological  
2 satisfaction derived from nicotine; correct?

3 A. I guess most people hold that view.

4 Q. The smoker's choice of product and pattern of  
5 usage are primarily determined by his individual  
6 dosage requirements of nicotine; correct?

7 MR. McDERMOTT: Object, foundation.

8 A. I don't really know how to answer that. I had  
9 very little to do with nicotine over the years. Most  
10 of mine was on the other components of smoke.

11 (Plaintiffs' Exhibit 1057 was marked  
12 for identification.)

13 BY MR. O'FALLON:

14 Q. I've had marked as document 1057 a document  
15 Bates stamp numbered 50091 5683 through 5691. Do you  
16 recognize that document?

17 A. I -- yes, I do recognize it.

18 Q. Okay. This is entitled a "RESEARCH PLANNING  
19 MEMORANDUM ON THE NATURE OF THE TOBACCO BUSINESS AND  
20 THE CRUCIAL ROLE OF NICOTINE THEREIN"; correct?

21 A. That's right.

22 Q. It's written by Dr. Teague?

23 A. Yes.

24 Q. And you worked with Dr. Teague; correct?

25 A. Yes, but until yesterday I'd never seen this

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1 report before.

2 Q. It's designated RJR confidential; correct?

3 A. That's right.

4 Q. And that's a designation that RJR placed on some  
5 of its internal documents?

6 A. Yes.

7 Q. So that's an RJR-placed denotation; right?

8 A. Yes. There are two they use: RJR confidential,  
9 RJR secret.

10 Q. What's the difference between the two?

11 A. Secret usually applied to things that might  
12 ultimately be product oriented, new product oriented,  
13 patent oriented, that we might -- that eventually  
14 might end up with some proprietary advantage in many  
15 instances.

16 Q. At some point in time, Mr. Teague was actually  
17 your -- or Dr. Teague was actually your supervisor;  
18 correct?

19 A. Yes, he was -- he became the manager of the  
20 chemical research division after Senkus moved up.

21 Q. Did you and Dr. Teague start at about the same  
22 time at RJR?

23 A. He started about -- I think about 1952, two  
24 years before I did.

25 Q. And Dr. Senkus, did he start at about the same

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1 time as well?

2 A. He started about the same time as Dr. Teague.

3 What happened was they built a new research building  
4 and began to staff it, and Mr. Hoover, the director  
5 of research; Dr. Senkus; Dr. Markunas, analytical  
6 research manager; Dr. Colby; a man called Mr. Gerald  
7 Snyder all came at the same time. In fact, they all  
8 worked together at Commercial Solvents, and  
9 Dr. Markunas brought Robert Cundiff, who was quite a  
10 whiz at analytical chemistry.

11 Q. And then you were hired as well?

12 A. Well and they built a new building, which was  
13 finished in 1953, and they hired -- had a massive  
14 hiring plan and I came. I was interviewed in early  
15 '54 and there were a whole bunch of us came in '54.

16 Q. So you and Dr. Senkus and Dr. Teague and  
17 Dr. Colby worked approximately 30 years together at  
18 RJR?

19 A. Right. Dr. Senkus retired in 1978.

20 Q. Dr. Teague knew a fair amount about nicotine;  
21 correct? Is that one of his areas?

22 A. Well actually he was mostly involved in the lab  
23 with flavorants and treatment of tobacco. Then when  
24 he became manager, he was very interested in  
25 planning, and as I say, I'd never seen this before,

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1 so --

2 Q. On the -- the first full page as opposed to the  
3 cover page of the document, Bates number 684, he  
4 states that, quote, "In a sense, the tobacco industry  
5 may be thought of as being a specialized, highly  
6 ritualized and stylized segment of the pharmaceutical  
7 industry"; correct?

8 A. That's what he states.

9 Q. He says "Tobacco products, uniquely, contain and  
10 deliver nicotine, a potent drug with a variety of  
11 physiological effects."

12 A. Uh-huh.

13 Q. He then goes on to state that "Nicotine is known  
14 to be a habit-forming alkaloid, hence the confirmed"  
15 use of tobacco -- "the confirmed user of tobacco  
16 products is primarily seeking the physiological  
17 'satisfaction' derived from nicotine -- and perhaps  
18 other active compounds"; correct?

19 A. Uh-huh. I'm sure he didn't make all this up.

20 It probably was in the literature for years.

21 Q. And fairly well known that nicotine is the  
22 primary reason that smokers smoke cigarettes;  
23 correct?

24 A. I think that was the -- what most people said.

25 Q. Well and that's what you understood at RJR;

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1 correct?

2 MR. McDERMOTT: Object, no foundation.

3 A. I'd say most of my work was done with the other  
4 things in smoke frankly.

5 Q. But of course nicotine's one of the primary  
6 components of smoke?

7 A. Well you know, it's interesting to me. You talk  
8 about nicotine being the primary item in smoke or --  
9 I don't know what you meant by "primary." If you  
10 look at the surgeon -- at the FTC procedure, why is  
11 it that they express the FTC tar by their analysis as  
12 wet total particulate matter less water less nicotine  
13 in 1965, '66, '67, '68 up to the present time?

14 Q. Move to strike as nonresponsive.

15 You would agree that nicotine is one of the  
16 primary components of smoke, of cigarette smoke?

17 A. It's the most plentiful -- second-most plentiful  
18 component in the particulate matter of smoke. As to  
19 whether it's primary or not, it depends on what  
20 you're looking at, sir.

21 Q. Well --

22 A. Because if you're looking at total smoke from a  
23 cigarette, it's infinitesimal compared to other  
24 things.

25 Q. It is apparently the primary one that the

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1 cigarette smoker wants to obtain; correct?

2 A. That's what Claude Teague says.

3 Q. And you have no reason to disagree with him, do  
4 you?

5 A. No, not really.

6 Q. On page 685, Dr. Teague states that "Happily for  
7 the tobacco industry, nicotine is both habituating  
8 and unique in its variety of physiological actions,  
9 hence no other active material or combination of  
10 materials provides" unique -- "provides equivalent  
11 satisfaction"; correct?

12 A. Well that's what he says, but I -- I wonder  
13 about that.

14 Q. As far as physiological actions, what he's  
15 really saying is that nicotine's a unique drug;  
16 correct?

17 MR. McDERMOTT: Object to the form of the  
18 question.

19 MR. BLANCATO: Object to the form.

20 A. I don't know that for -- I'm not a  
21 pharmacologist.

22 Q. And the reason it's happy for the tobacco  
23 industry that nicotine is habituating is because that  
24 way people continue to buy cigarettes over and over  
25 again; correct?

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1 A. Well there's a lot --

2 MR. McDERMOTT: Object to the form of the  
3 question, no foundation.

4 A. There's a lot more to smoking than nicotine.

5 Q. Well it appears that Dr. Teague is saying that  
6 nicotine really is the thing about smoking; correct?

7 MR. BLANCATO: Objection.

8 A. I haven't gone through this. Let's see. He has  
9 obviously concentrated on nicotine, but I -- but here  
10 again I -- the smoking habit, if you will, I would  
11 disagree with him that nicotine is the whole thing.

12 Q. Well he says at the bottom of the page that he  
13 terms nicotine the sine qua non of tobacco products;  
14 correct?

15 MR. McDERMOTT: Object to the form of the  
16 question, misquoting the document.

17 A. I guess he predicates that with the word "if,"  
18 doesn't he?

19 Q. Well he says "If nicotine is the sine qua non of  
20 tobacco products and tobacco products are recognized  
21 as being attractive dosage forms of nicotine, then it  
22 is logical to design our products -- ... where  
23 possible, our advertising -- around nicotine delivery  
24 rather than" the "'tar' delivery or flavor";  
25 correct?

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1 A. Well he doesn't say that it is. He just says if  
2 it is.

3 Q. He also compares nicotine with other drugs and  
4 suggests that the cigarette manufacturers are  
5 basically competing with other drug manufacturers,  
6 such as people who manufacture caffeine, alcohol,  
7 tranquilizers, sedatives, euphorics and the like;  
8 correct? That's at the top of page three.

9 MR. McDERMOTT: Object to the form of the  
10 question.

11 A. Well that's what he says.

12 Q. He concludes "Therefore, in addition to  
13 competing with products of the tobacco industry, our  
14 products may, in a sense, compete with a variety of  
15 other products with certain types of drug action";  
16 correct?

17 A. That's what he says.

18 Q. You have no reason to dispute that, do you?

19 A. I don't agree with him.

20 Q. In 1972 there was a discovery that there was an  
21 association between smoke pH and free nicotine;  
22 correct?

23 A. Yes.

24 Q. Free nicotine is that nicotine that's more  
25 easily absorbed by the smoker; correct?

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1 A. We don't know that.

2 Q. Didn't you actually determine that?

3 A. They thought they were determining it.

4 Q. As a matter of fact, RJR was particularly  
5 concerned because Philip Morris was manipulating  
6 their pH level of their smoke and delivering more  
7 free nicotine than the RJR products; correct?

8 A. That's what we thought, but it wasn't right.

9 Q. You went forward and ammoniated your own  
10 products to do the same thing; correct?

11 A. It was --

12 MR. McDERMOTT: Object to the form of the  
13 question.

14 A. We ammoniated our products and then -- you've  
15 got to remember this was a research project, sir,  
16 that -- and then found out that the basic premise was  
17 correct, but there was a -- another finding that  
18 explained everything that was supposedly due to free  
19 nicotine.

20 Q. And when did you find that out?

21 A. I believe it's in a report by Dr. Charles Rix.

22 Q. To this very day, RJR continues to add ammonia  
23 to its products; correct?

24 A. I don't know that. I haven't been --

25 Q. At the time you left, RJR was continuing to add

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1 ammonia to the products; correct?

2 A. I do know that RJR in years when the growing  
3 season for tobacco was such if you have a hot, dry  
4 summer in the South here, tobacco will have high  
5 nicotine, low sugar, and if you want to maintain a  
6 uniformity between different years in your products,  
7 you can't go from a low nicotine or a average  
8 nicotine in 1985, to a high one in 1986, to a low one  
9 in '87, keep jumping around. So when it was a high  
10 nicotine level because of a hot, dry summer -- if  
11 it's average summer and rainy, everything works out  
12 fine -- so nicotine was removed from tobacco by an  
13 ammoniation process.

14 Q. And then it was added back to tobacco, wasn't  
15 it?

16 A. It was not added back, sir.

17 Q. It's your testimony that when they removed  
18 the -- the nicotine, they never added it back?

19 A. They never added it back to my knowledge.

20 Q. That's your understanding of how the G7 process  
21 works?

22 A. G7 process?

23 Q. Do you understand that process?

24 A. That's a sheet-making process.

25 Q. Yeah. And part of that process involves the

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1 removal of nicotine from tobacco, doesn't it?

2 A. No, it doesn't.

3 Q. And the addition of that nicotine back onto that  
4 sheet by a spraying process?

5 A. Not as far as I know.

6 Q. Not as far as you know?

7 A. No. You -- that's a different thing than you  
8 asked me the first time, isn't it?

9 (Plaintiffs' Exhibit 1058 was marked  
10 for identification.)

11 BY MR. O'FALLON:

12 Q. Handing you a document that's been Bates stamp  
13 numbered 1058, it's a -- been marked as 1058, it's a  
14 document Bates stamp numbered 51122 3463 through  
15 3484.

16 A. Uh-huh.

17 Q. It's entitled "IMPLICATIONS AND ACTIVITIES  
18 ARISING FROM CORRELATION OF SMOKE pH WITH NICOTINE  
19 IMPACT, OTHER SMOKE QUALITIES, AND CIGARETTE SALES."

20 A. Uh-huh.

21 Q. Have you seen this document previously?

22 A. Yes.

23 Q. Let's look on page 466. Roman numeral III is  
24 entitled "SMOKE pH AND," quote, "'FREE,'" end quote,  
25 "NICOTINE." It states, quote, "In essence, a

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1 cigarette is a system for delivery of nicotine to the  
2 smoker in attractive, useful form:; correct?

3 A. Uh-huh.

4 Q. And again this --

5 A. Yes.

6 Q. -- is an internal RJR report; correct?

7 A. Yes.

8 Q. This is an official report?

9 A. It was a presentation, as I remember, by  
10 Dr. Teague.

11 Q. It has a number to it, number 15?

12 A. No, no. That's the secret stamp for RJR secret  
13 material, and number 15 was the stamp issued to  
14 Dr. Teague.

15 Q. So that's just the stamp, his number?

16 A. In other words, if I had a secret stamp, it  
17 might have number 13 or 27 or whatever on it.

18 Q. What did your secret stamp have on it?

19 A. I never had one.

20 Q. He then goes on to state "At," quote,  
21 "'normal,'" end quote, "smoke pH, at or below about  
22 6, essentially all of the smoke nicotine is  
23 chemically combined with acidic substances, hence is  
24 non-volatile and relatively slowly absorbed by the  
25 smoker"; correct?

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1 A. That's what he says.

2 Q. "As the smoke pH increases above 6, an  
3 increasing" portion "of the total smoke" -- "smoke  
4 nicotine occurs in," quote, "'free,' " end quote,  
5 "form, which is volatile, rapidly absorbed by the  
6 smoker, and believed to be instantly perceived as  
7 nicotine 'kick"'; correct?

8 A. That's what he said.

9 Q. He then talks about Marlboro. He says "As a  
10 result of its higher smoke pH, the current Marlboro,  
11 despite a two-thirds reduction in smoke 'tar' and  
12 nicotine over the years, calculates to have  
13 essentially the same amount of 'free' nicotine in its  
14 smoke as did the early WINSTON"; correct?

15 A. Uh-huh, yes. However, Dr. Teague's later  
16 research showed that what we thought was going on  
17 back in those days was wrong.

18 Q. Where's that document, sir?

19 A. Chuck Rix's document.

20 Q. What one? Do you have it?

21 A. I don't know -- I don't have it.

22 Q. When's the last time you saw it?

23 A. Couple of days ago.

24 Q. So who showed it to you?

25 MR. McDERMOTT: It was in the stack of

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1 documents you sent, Counsel.

2 MR. O'FALLON: Okay.

3 Q. Have you got a -- a specific Bates number for  
4 that?

5 A. No, I don't.

6 Q. Chuck Rix, huh?

7 A. Charles Rix.

8 MR. McDERMOTT: I'll locate the document at  
9 the next break, if you'd like, and give you --

10 MR. O'FALLON: That would be fine.

11 MR. McDERMOTT: -- some document numbers.

12 And we've been going for about an hour, so maybe you  
13 want to look for an opportunity to take a break and  
14 I'll find the document.

15 Q. Under "SMOKE pH AND OTHER SMOKE QUALITIES," it  
16 states, quote, "In addition to enhancing nicotine  
17 'kick', increasing the pH (increasing alkalinity) of  
18 smoke above about 6.0 causes other changes,  
19 particularly when the" increases -- "the increase in  
20 smoke pH is achieved by adding ammonia to the blend";  
21 correct?

22 A. That's what he said.

23 Q. And it's your testimony as you sit here today  
24 that adding ammonia to the blend does not increase  
25 the smoke pH?

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1 A. I didn't say that.

2 Q. Is it your testimony as you sit here today that  
3 adding ammonia to the blend does not increase the  
4 amount of free nicotine?

5 A. It may or it may not. Despite all that's  
6 written about free nicotine in probably 25 documents,  
7 no one has ever determined free nicotine in the  
8 mainstream smoke from a cigarette no matter what the  
9 pH as long as it's below 7. This is one of those  
10 cases I believe when continued investigation finally  
11 unraveled what -- what was happening.

12 Q. Are you familiar with the various investigations  
13 done by RJR after the time you left in 1987?

14 A. Not many of them, no.

15 Q. Are you --

16 Are you familiar with the projects that RJR  
17 undertook on levulinic acid?

18 A. Only from the fact some -- that I had a --  
19 something somebody sent here. I don't know what it  
20 was all about.

21 Q. So you don't know anything about what RJR did  
22 after you left, did you?

23 A. No.

24 Q. You don't know what they determined about smoke  
25 pH and free nicotine, do you?

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1 A. No, but I know what -- I know what -- to answer  
2 your question, no, I don't, but the thing is that  
3 they kept disregarding what had been discovered,  
4 which actually answers the question and which is now  
5 accepted by a lot of people that all thought this was  
6 the reason, not both in the tobacco industry and  
7 outside of the tobacco industry.

8 Q. So you manipulated nicotine for all those years  
9 for nothing?

10 A. We didn't --

11 MR. McDERMOTT: Objection to the form of  
12 the question.

13 A. We did not manipulate -- define "manipulation,"  
14 sir.

15 Q. Control. Did you control nicotine --

16 A. Yeah, we always lowered it.

17 Q. That's going to be your testimony? Did you  
18 always -- did you always lower free nicotine?

19 A. As I say --

20 Q. You don't know?

21 A. Well --

22 MR. McDERMOTT: Let him finish his answer.

23 A. Free nicotine is a calculated value. There is  
24 no free nicotine in smoke that anybody can  
25 determine.

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1 Q. So it is now your testimony that there is no  
2 free nicotine in smoke?

3 MR. ZIRLIN: Objection.

4 A. That anybody can measure.

5 Q. Other than by calculations based on reasonable  
6 scientific certainty; correct?

7 A. Yeah.

8 MR. McDERMOTT: Object to the form of the  
9 question.

10 MR. BLANCATO: Objection.

11 A. It's based on a premise of -- of the  
12 calculation.

13 Q. We can't necessarily see a molecule, but we have  
14 a reasonable basis to believe it exists; correct,  
15 sir?

16 A. Depends on the molecule.

17 Q. But science operates like that, don't they,  
18 sir?

19 A. If -- if you look at the concept of free  
20 nicotine and, if I may, can I draw you a diagram?

21 Q. No, I'm not answering that question. I'd like  
22 you to stick to answering the questions I ask.

23 MR. McDERMOTT: The doctor was --

24 MR. O'FALLON: If you want him to answer,  
25 you can ask him the question. You can clean it up on

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1 your direct.

2 MR. McDERMOTT: We will ask questions when  
3 it is our turn.

4 MR. O'FALLON: That's right.

5 MR. McDERMOTT: He is nevertheless able to  
6 complete any response to any question you pose. You  
7 don't get to cut it off when you're satisfied or  
8 you're frustrated.

9 MR. O'FALLON: He asked --

10 MR. McDERMOTT: Dr. Rodgman, if you had  
11 something more to say in response to the then-pending  
12 question he --

13 MR. O'FALLON: No, no. He asked if he  
14 could draw a diagram, and I said no. It's  
15 nonresponsive to my question.

16 MR. McDERMOTT: If the diagram is necessary  
17 for him to complete his response to your question, he  
18 can either say so --

19 MR. O'FALLON: Would you stop coaching the  
20 witness, sir?

21 MR. McDERMOTT: I'm not trying to coach the  
22 witness. Would you stop cutting him off?

23 MR. BLANCATO: Would this be a good time to  
24 take a break?

25 MR. O'FALLON: Well yes, because it's going

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1 to take us two pages to find the question.

2 MR. McDERMOTT: You look for the question  
3 and I'll look for the Rix document.

4 THE REPORTER: Off the record, please.

5 (Recess taken.)

6 BY MR. O'FALLON:

7 Q. When we left off, we were talking about free  
8 nicotine. It's my understanding that free nicotine's  
9 a calculated value.

10 A. That's right, sir.

11 Q. It's not a value that you can actually measure?

12 A. No. I had two of the best analytical chemists  
13 in this country spend two years trying to do it.

14 Q. But nonetheless, it's reasonable to assume that  
15 there is free nicotine in tobacco smoke; correct?

16 A. If you want to go by the calculation.

17 Q. And there's no reason to believe that those  
18 calculations are inaccurate; correct?

19 A. Well it really doesn't matter how much free  
20 nicotine's in tobacco smoke and the way it's  
21 perceived, and that's why I wanted to draw you the  
22 diagram.

23 Q. Doctor --

24 A. Because the smoke has to get through the saliva,  
25 and the saliva is a buffered solution. And whether

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1 it's impacted with pH smoke 6.2 or pH smoke 6.9, the  
2 controlling factor is going to be the pH of your  
3 saliva, which is an individual thing. So if it's at  
4 7, which it usually is, whether you're dealing with  
5 smoke with 6.2 pH or 6.9, it has to change to 7 to  
6 get to the taste buds or the side of your mouth or  
7 whatever, so it doesn't matter what's in the smoke at  
8 pH 6.2 versus 6.9.

9           However, before -- when you ammoniate tobacco,  
10 no matter how you do it, lightly, you -- you do raise  
11 the pH of the smoke, but you also form a class of  
12 compounds known as pyrazines, which are highly  
13 flavorful, and the higher the pH, the more pyrazines,  
14 the more acceptable the smoke is to the smoker.

15 Q.   When you're talking about saliva, you're only  
16 speaking about nicotine absorbed by the mouth;  
17 correct?

18 A.   That's right.

19 Q.   You're not talking about nicotine absorbed by  
20 the lung; correct?

21 A.   We never measured that, but the same type of  
22 solution that coats your mouth, the saliva, there's a  
23 solution coats the whole surface of your lung, and it  
24 is a buffered solution and acts -- actually acts --  
25 acts, pardon me, essentially the same way as the

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1 saliva does. It's a little different pH, but  
2 whatever gets through that layer of liquid has to  
3 change to that pH, and the whole purpose of a  
4 buffered solution is that it resists changing pH.  
5 That's why Dr. Rix got the same value with and  
6 without added nicotine salts.

7 Q. Move to strike all that as nonresponsive.

8 Going back to the document, on page 467,  
9 Dr. Teague concludes under "MARKETING CORRELATIONS  
10 AND IMPLICATIONS" that "Putting all this together, we  
11 see that Marlboro (and other Philip Morris brands) as  
12 compared with WINSTON, our other brands and most  
13 other brands on the market shows: (1) higher smoke  
14 pH," parenthetical, "(higher alkalinity), hence  
15 increased amounts of 'free' nicotine in smoke, and  
16 higher immediate nicotine 'kick"'; correct?

17 A. Well I don't know how he measured that, but  
18 you've got to remember this was written --

19 Q. Is that what it says?

20 A. Yeah, that's what it says, but it's -- this was  
21 written before the whole business about saliva and --

22 Q. Yes, I --

23 A. -- pyrazines.

24 Q. I understand you want to talk about Dr. Rix's  
25 memo, and you'll have plenty of opportunity to do

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1 that afterwards.

2 He also concluded that sustained growth in sales  
3 of Marlboro and other Philip Morris brands and Kool  
4 correlated closely with the increased smoke pH, hence  
5 increased free nicotine and nicotine impact of those  
6 brands; correct?

7 A. That's what he says, but again he was wrong.

8 Q. He also concluded that "There is evidence that  
9 other brands which are selling well also have some of  
10 these attributes, particularly increased," quote,  
11 "'free,'" end quote, "nicotine impact"; correct?

12 A. That's what he said, but again he's wrong.

13 Q. "Because brands of the new type continue to show  
14 vigorous growth in sales; because a high proportion  
15 of beginning smokers are learning to like Marlboro,  
16 the leading brand of the new type; and because we  
17 have no current brand in this newly identified, major  
18 segment of the market," he was thinking you needed to  
19 study this; correct?

20 A. That's what he said.

21 Q. How much nicotine research have you done, sir?

22 A. Personally?

23 Q. Yes.

24 A. Very little.

25 Q. He also concludes on the first page, on page

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1 465, that "All evidence indicates that the relatively  
2 high smoke pH (high alkalinity) shown by Marlboro  
3 (and other Philip Morris brands) and Kool is  
4 deliberate and controlled"; correct?

5 A. That's what he says.

6 Q. In other words, they're attempting to control  
7 nicotine; correct?

8 MR. McDERMOTT: Object to the form of the  
9 question.

10 A. Where did you read that? I'm sorry, you lost  
11 me.

12 Q. I'm sorry, it's on page 465, the last  
13 paragraph. It says "All evidence indicates that the  
14 relatively high smoke pH (high alkalinity) shown by  
15 Marlboro (and" the "other Philip Morris brands) and  
16 Kool is deliberate and controlled."

17 A. That's what he said, and again I go back to the  
18 pyrazine business, that Marlboro has a highly  
19 flavored smoke system because of the way they did  
20 it.

21 Q. In 1972 you started studying nicotine in detail;  
22 correct?

23 MR. BLANCATO: You mean Dr. Rodgman  
24 personally?

25 MR. O'FALLON: RJR.

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1 A. Yeah. We -- we started in '72, yeah.

2 (Plaintiffs' Exhibit 1059 was marked  
3 for identification.)

4 BY MR. O'FALLON:

5 Q. 1059 is a document dated May 10th, 1973, Bates  
6 stamp numbered 50060 6138 --

7 A. Uh-huh.

8 Q. -- through 6153; correct?

9 A. That's right.

10 Q. This is a document by John D. Woods and  
11 Gloria C. Harllee; correct?

12 A. Right.

13 Q. Again, it's entitled "HISTORICAL REVIEW OF SMOKE  
14 pH DATA AND SALES TRENDS FOR COMPETITIVE BRAND FILTER  
15 CIGARETTES"; correct?

16 A. Yes.

17 Q. Under the "SUMMARY" in the middle of the first  
18 paragraph they conclude that "The results show that  
19 since 1964 the smoke pH for the Marlboro and Kool  
20 cigarettes has been steadily increasing"; correct?

21 A. That's what it says.

22 Q. "While that for ... other brands studied has  
23 remained almost constant"?

24 A. Yes.

25 Q. "Thus, all the brands have about the same FTC

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1 'tar' and nicotine, but the Marlboro and Kool are

2 stronger due to a higher smoke pH"; correct?

3 A. That's what they said.

4 Q. They also conclude in the next paragraph in  
5 looking at data from 1957 to 1964 and 1957 to 1972  
6 that "The results of these studies show that there is  
7 a very strong positive correlation between smoke pH  
8 and sales trends over the years studied"; correct?

9 A. This is prior to Dr. Rix's report, so everybody  
10 had their own concept before that.

11 Q. "A high pH smoke is strong due to a high  
12 concentration of unbound, or free, nicotine in the  
13 smoke"; correct?

14 A. That's what he said, but again, as I say, the  
15 premise is in -- was thought to be correct and was  
16 proven to be incorrect.

17 Q. Let's go back for a second to Dr. Teague's  
18 document. Let's look at page 479.

19 MR. CRIST: I'm sorry, which exhibit,  
20 please?

21 MR. O'FALLON: Oh, I'm sorry, that would  
22 be --

23 THE WITNESS: 58?

24 MR. O'FALLON: I believe it's 1058.

25 THE WITNESS: Here it is.

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1 Q. Are you on page Bates number 511 --

2 A. The one with the curve?

3 Q. Yes, but why don't you let me make the record

4 clear here.

5 A. Okay.

6 Q. It's Bates number 51122 3479; correct? Correct?

7 A. Yes.

8 Q. And it's entitled "CHART VIII, pH, NICOTINE AND

9 SMOKE QUALITY"; correct?

10 A. Uh-huh.

11 Q. And it shows on the one side it has the effect

12 on nicotine and the other side it has the effect on

13 the smoker of varying levels of pH; correct?

14 A. That's right.

15 Q. It says that low pH, in the smoker you have slow

16 nicotine absorption; correct?

17 A. That's what it says.

18 Q. Whereas, in higher nicotine -- higher pH levels,

19 you have rapid nicotine absorption, a big burley

20 nicotine flavor and harshness to the throat;

21 correct?

22 A. Right. And down at the bottom it also says high

23 flue cured, high Turkish and high stem flavor.

24 Q. Right.

25 A. Which is where the pyrazines come in.

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1 Q. It also indicates --

2 By the way, were you involved in that pyrazine  
3 research?

4 A. Yes, very much so. I have a report on that. I  
5 was involved in the sense -- sense I pulled all the  
6 stuff together.

7 Q. What year did you do that?

8 A. 1976.

9 Q. It states that the effect on nicotine as the pH  
10 increases is to increase the amount of free nicotine;  
11 correct?

12 A. That's right.

13 Q. But you --

14 A. As calculated.

15 Q. Do you agree or disagree that that's true?

16 A. As I said, it's a calculated value.

17 Q. That's not my question. Do you -- is it true or  
18 not true?

19 A. It would be true, yes.

20 Q. So free nicotine does increase as the pH value  
21 increases?

22 A. In solution, yes. We don't know -- really know  
23 about smoke.

24 Q. But it's a reasonable assumption and conclusion  
25 to make based on --

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1 A. No, it's not a reasonable --

2 Q. Sir, would you let me complete my answer before  
3 you talk right over the top of it.

4 It's a reasonable conclusion that free nicotine  
5 would also increase in cigarette smoke; correct?

6 A. I would say it's reasonable.

7 Q. Let's go back to the document. I believe it's  
8 1059?

9 THE REPORTER: Yes.

10 Q. On the second page of that document, at page  
11 last Bates number 6139, they state, quote, "The  
12 results of these studies suggest that the strength of  
13 a cigarette, which may be controlled in part by  
14 adjustment of smoke pH, is extremely important to the  
15 successful performance of a cigarette"; correct?

16 A. They say that, and here again I keep coming back  
17 to the flavor aspects of cigarette smoke versus what  
18 you're talking about.

19 Q. But again, this document's indicating that it's  
20 due to the increased nicotine satisfaction and  
21 impact; correct?

22 A. And here again John Woods and Gloria Harllee did  
23 not have the benefit of the saliva work, which has  
24 been done in other laboratories besides ours.

25 Q. Just so I'm clear, it's your testimony that the

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1 main reason to add ammonia to tobacco smoke is to  
2 increase its flavor?

3 A. Well that's what it -- the way it ends up.

4 Q. Is that the reason you do it?

5 A. Well as I told you before, we used -- we used  
6 ammonia to denicotinize tobacco in the years when a  
7 crop had extraordinarily high nicotine levels.

8 Q. You didn't start adding ammonia to tobacco until  
9 1974; correct?

10 A. That's wrong.

11 Q. That's wrong?

12 A. We denicotinized tobacco with ammonia in  
13 nineteen fifty -- before I came to the company.

14 Q. When did you finally start adding ammonia to  
15 your final cigarette blend?

16 A. I -- I really don't know when. We started with  
17 G7A, which was called ammoniated reconstituted  
18 tobacco sheet.

19 Q. So the fact that you used nic --

20 The fact that you used ammonia to denicotinize  
21 tobacco, did that ammonia stay in the tobacco?

22 A. Most of it, not all of it, some of it, but it  
23 also -- when we went back and had a -- of course you  
24 remember when this was first done, we knew very  
25 little about smoke composition.

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1 Q. Nicotine's a lethal poison. What did you do  
2 with the nicotine once you took it out?  
3 A. For many years we burned it. In the early  
4 years, when I first came to Reynolds in 1954, they  
5 had scrap tobacco and so on, so forth. They used to  
6 take scrap tobacco and stems, which of course were  
7 very lightly used in those days prior to  
8 reconstituted tobacco sheet. They distilled the  
9 nicotine out of it from alkaline solution and sold it  
10 to the company that made Black Flag 40, I think it's  
11 called.

12 Q. That's because nicotine's a poison; right?

13 A. Well, sir, nicotine's been known as being toxic  
14 since 1828.

15 Q. It's a poison?

16 A. It's toxic.

17 Q. It's used as a poison?

18 A. It was used to kill bugs.

19 Q. It can also kill humans, couldn't it?

20 A. Yes, if you give them enough.

21 Q. How much?

22 A. Well it takes -- I don't know -- 25 milligrams  
23 straight. It's all in the Merck manual if you want  
24 to know.

25 (Telephonic interruption and discussion

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1 off the record.)

2 (Recess taken.)

3 (Plaintiffs' Exhibit 1060 was marked

4 for identification.)

5 BY MR. O'FALLON:

6 Q. I've had marked as 10 -- as Deposition Exhibit

7 1060 a document that's Bates stamp numbered 50091

8 7535 through 50091 5 -- 7548.

9 Have you seen this document, sir?

10 A. Yes, I have. It was a presentation Dr. Teague

11 gave to somebody or other. It's based -- sort of

12 based on that other one, as I remember.

13 Q. Let's look at -- at page 545, the last three

14 Bates numbers 545.

15 A. Uh-huh.

16 Q. Under number six what Dr. Teague states is "WHAT

17 WE ARE SEEING AND MEASURING FITS WHAT WE KNOW ABOUT

18 PHILIP MORRIS AND BROWN AND WILLIAMSON PRODUCT

19 PHILOSOPHIES. THEY APPEAR TO DESIGN PRODUCTS

20 PRIMARILY TO DELIVER OPTIMUM NICOTINE IMPACT AND

21 SATISFACTION -- AIMING ALSO AT A RELATIVELY BLAND

22 SMOKE, LETTING FLAVOR FALL WHERE IT WILL"; correct?

23 A. That's what he says.

24 Q. Okay. And so the Marlboro and Kool products,

25 those products with the increased pH, tend to have a

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1 relatively bland smoke?

2 A. I don't know where he got that.

3 Q. It also states that "PHILIP MORRIS APPEARS TO BE  
4 FAR MORE SOPHISTICATED IN THIS RESPECT THAN BROWN AND  
5 WILLIAMSON -- WHO OF COURSE CAN MASK A MULTITUDE OF  
6 SINS BEHIND MENTHOL"; correct?

7 A. That's what he says.

8 MR. TOWNSEND: I object to the form of the  
9 question.

10 Q. One of his concerns at number nine is that  
11 "SUBSTANTIAL NUMBERS OF SMOKERS ARE LEARNING TO LIKE  
12 AND USE PRODUCTS WITH SMOKING QUALITIES SIGNIFICANTLY  
13 DIFFERENT FROM THOSE OF OUR," RJR's, "STANDARD  
14 BRANDS"; correct?

15 A. Yes, that's what he says.

16 Q. He says "IF THE DIFFERENCE REMAINS OR INCREASES,  
17 THE PROBABILITY OF A SMOKER SWITCHING FROM A MARLBORO  
18 OR KOOL TO A WINSTON OR SALEM -- THAT ... IS FROM ONE  
19 DISTINCT TYPE TO ANOTHER -- IS FAIRLY LOW -- UNLESS  
20 HE SEES SOME COMPELLING REASON TO REALLY, IN A SENSE,  
21 RE-LEARN TO SMOKE"; correct?

22 A. You're reading the document, sir. That's what  
23 he says.

24 Q. Okay. Then he goes on to state -- and again  
25 this is on page 546 -- "WE DO NEED TO WORRY ABOUT THE

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1 MANY BEGINNING SMOKERS, LEARNING TO LIKE A DIFFERENT  
2 TYPE OF CIGARETTE -- MARLBORO -- WHO MAY TEND TO STAY  
3 WITH THAT TYPE OF CIGARETTE, AND WHO MAY FIND IT  
4 DIFFICULT TO LEARN TO LIKE OUR PRODUCTS"; correct?

5 A. That's what he says.

6 Q. And that's one of the concerns that -- that RJR  
7 had at this time, was that this new generation of  
8 smokers, these beginning smokers, were going to learn  
9 to like these Marlboro cigarettes which had this  
10 different pH balance; correct?

11 A. Well that's what we thought it was, but it  
12 turned out it wasn't.

13 Q. And you were particularly concerned with  
14 beginning smokers, most of whom were under the age of  
15 18; correct?

16 A. I don't know where you get that, sir.

17 MR. McDERMOTT: Object to the question,  
18 vague.

19 Q. And isn't it true that at some point -- it isn't  
20 your understanding that the vast majority of people  
21 begin to smoke under the age of 18?

22 A. I don't know that.

23 Q. That wasn't generally known at RJR?

24 MR. McDERMOTT: Object to the form of the  
25 question.

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1 A. I don't know that.

2 (Discussion off the stenographic record.)

3 (Plaintiffs' Exhibit 1061 was marked

4 for identification.)

5 BY MR. O'FALLON:

6 Q. Exhibit 1061 is a document Bates stamp numbered  
7 50116 6152 through 6153. It's dated December 4th,  
8 1973 from Frank Colby to Mr. R. A. Blevins, Junior,  
9 director of marketing planning. Have you seen this  
10 document previously?

11 A. Only in the last couple of days.

12 Q. Okay. Under the "Summary" Dr. Colby states,  
13 quote, "It is suggested to develop a new RJR  
14 youth-appeal brand based on the concept of going  
15 back - at least halfway - to the technological design  
16 of the WINSTON and other filter cigarettes of the  
17 1950's"; correct?

18 A. Yeah, that's what -- that's what he says.

19 Q. Okay. So what he's wanting to do is design this  
20 cigarette for the youth market that has a higher  
21 nicotine kick; correct?

22 MR. BLANCATO: Objection.

23 MR. McDERMOTT: Object to the form of the  
24 question.

25 A. It doesn't say that in the summary.

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1 Q. Okay. Well let's look down to the bottom of the  
2 page. It says "In my judgment, for public relations  
3 reasons it would be impossible to go all the way back  
4 to the 1955 type cigarettes. As far as tar and  
5 nicotine in the smoke are concerned, I believe it  
6 should be possible to achieve the desired effect by  
7 going to a tar level of today's Pall Mall  
8 (non-filter" style) "of about 29 milligram tar and  
9 1.8 milligram nicotine. Still, with an old style  
10 filter, any desired additional nicotine 'kick' could  
11 be easily obtained through pH regulation"; correct?

12 A. As I say, he was not aware of the things that  
13 happened that are -- everybody thought certain things  
14 were right, sir, but then it was shown that a lot of  
15 it was wrong.

16 Q. He indicates that the cigarettes from the '50s  
17 did deliver more enjoyment or kicks nicotine;  
18 correct?

19 A. Where is that?

20 Q. That's on the first page, kind of the fourth  
21 part of the paragraph, the numbered sentences. Do  
22 you see number two?

23 A. Oh, okay.

24 Q. And he's talking about the 1950 cigarettes;  
25 correct?

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1 A. Well 1950 cigarettes delivered nearly 3  
2 milligrams of nicotine.

3 Q. And he concluded they delivered more enjoyment  
4 or kicks, the nicotine; correct?

5 A. Also delivered more tar.

6 Q. But he's saying here that you could achieve the  
7 desired additional nicotine kick by regulating the  
8 pH; correct?

9 A. As I said before, sir, a lot of people thought  
10 that, but it was proven to be wrong.

11 Q. And again what he was suggesting is that they  
12 aim these cigarettes at the youth market; correct?

13 A. You have to define "youth," I guess.

14 Q. Well how do you define "youth"?

15 A. I would have said 18 and older.

16 Q. RJR did market cigarettes in the 1970s to  
17 children under the age of 18; correct?

18 A. I don't believe so.

19 MR. McDERMOTT: Object to the form of the  
20 question.

21 Q. In fact, RJR specifically marketed cigarettes to  
22 which they added ammonia to children under the age of  
23 18; correct?

24 MR. McDERMOTT: Object to the question.

25 A. No, sir.

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1 Q. They didn't do that?

2 A. Not that I know of.

3 Q. In 1974 RJR started adding ammonia to Camel;

4 correct?

5 A. I don't know when they started.

6 (Plaintiffs' Exhibit 1062 was marked

7 for identification.)

8 BY MR. O'FALLON:

9 Q. I have marked as document 1062 a document Bates  
10 stamp numbered 50901 8864 through 8865A. Would you  
11 take a look at that document.

12 A. Uh-huh.

13 Q. The top of this document is entitled

14 "AMMONIATION"; correct?

15 A. Yes.

16 Q. The definition of ammoniation is "THE REATION OF  
17 AMMONIA WITH TOBACCO TO PRODUCE AMMONIATED TOBACCOS  
18 WHICH SMOKE DIFFERENTLY AND PRODUCE A MILDERS SMOOTHER  
19 FLAVORED SMOKE"; correct?

20 A. Right.

21 Q. It states that "RJR BEGAN WORKING WITH  
22 AMMONIATION OF TOBACCO AND TOBACCO BY-PRODUCTS IN THE  
23 1950S, BUT DID NOT APPLY THE TECHNOLOGY"; correct?

24 A. Yes.

25 Q. It says "PHILIP MORRIS BEGAN USING AN AMMONIATED

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1 SHEET MATERIAL IN 1965 AND INCREASED USE OF THE SHEET  
2 PERIODICALLY FROM 1965 TO 1974"; correct?

3 A. That's what it says.

4 Q. It also states that "THIS TIME PERIOD  
5 CORRESPONDS TO THE DRAMATIC" -- "DRAMATIC SALES  
6 INCREASE PHILIP MORRIS MADE FROM 1965 TO 1974"?

7 A. Yes.

8 Q. It says "THE USE OF AMMONIA TO EXPAND TOBACCO  
9 WAS INITIATED BY PHILIP MORRIS IN 1974 AND RESULTED  
10 IN AN ADJUSTMENT TO THE PM SHEET MAKING PROCESS";  
11 correct?

12 A. That's right.

13 Q. "RJR INTRODUCED AMMONIATED SHEET MATERIAL IN THE  
14 CAMEL FILTER ... IN 1974"; correct?

15 A. Yes.

16 Q. "BETTER MARKET PERFORMANCE WAS INDICATED IN THE  
17 SUBSEQUENT YEARS"; correct?

18 A. Right.

19 Q. "LOW 'TAR' PRODUCTS PRODUCED AT RJR WERE  
20 DESIGNED WITH AMMONIATED SHEET MATERIAL BEGINNING IN  
21 1974"; correct?

22 A. Right.

23 Q. It says "RSM STUDIES SHOWED THAT AMMONIATION WAS  
24 ONE OF THE MAJOR CONSUMER RECOGNIZED PRODUCT  
25 ATTRIBUTES TESTED"; correct?

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1 A. Yes, you --

2 Q. Correct?

3 A. Yes.

4 Q. It then states that "AMMONIATED SHEET WAS

5 INTRODUCED INTO ... WINSTON KS PRODUCT IN 1979";

6 correct?

7 A. Yes.

8 Q. So it appears that this document is sometime

9 after 1979; correct?

10 A. I would assume so.

11 Q. Okay. It then talks about "PRODUCT  
12 CHARACTERISTICS." Those include "HIGHER SMOKE PH";  
13 correct?

14 A. Yes.

15 Q. "CLEANER TASTE WITH MORE FREE NICOTINE";  
16 correct?

17 A. That's what it says, but here again I --

18 Q. So you're saying this -- this post-1979 document  
19 is incorrect as well?

20 A. Well I still come back to -- sir, to the -- this  
21 concept of the free nicotine being a calculated  
22 value.

23 Q. Do you deny that higher smoke pH should result  
24 in more free nicotine in smoke?

25 A. As calculated, yes.

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1 Q. Okay. And would you agree that higher pH and  
2 ammonia also result in a stronger physiological  
3 impact with less harshness?

4 A. Because of the flavor -- increase in flavorants  
5 in the smoke.

6 Q. A physiological impact is a drug-related impact;  
7 correct?

8 A. No.

9 MR. McDERMOTT: Object.

10 Q. It's your testimony that when they refer to  
11 stronger physiological impact, they're not referring  
12 to nicotine?

13 A. I think it's what was -- they were measuring as  
14 indicated by the consumer. When you smell something,  
15 it's a physiological reaction; you taste something,  
16 it's physiological reaction.

17 Q. The physiological impact they're referring to  
18 here is the nicotine impact, is it not?

19 MR. BLANCATO: Objection.

20 A. I don't think so. I don't know. It doesn't say  
21 so.

22 Q. It doesn't say it isn't; right?

23 MR. McDERMOTT: Object to the form of the  
24 question.

25 Q. How many --

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1           How many components in cigarette smoke have a  
2 physiological impact?

3   A.   Well, the last time I calculated or -- or  
4 surveyed it, there were 4,800 known components in  
5 tobacco smoke and -- and in estimates in looking at  
6 the analytical curves there were probably 20 times  
7 that we do not know. Now if you want to ask things  
8 about physiological impact --

9   Q.   Well --

10   A.   -- do -- do you ever taste vinegar?

11   Q.   When R. --

12   A.   Sir, I'm finishing my question. May I? My  
13 answer.

14           There are acetic acids in smoke. That's got a  
15 physiological impact. It's sour. There's formic  
16 acid in smoke. There's ammonia in smoke. There's  
17 nicotine in smoke. There's methylamine in smoke.  
18 Every one of them has a taste, a smell, an odor,  
19 whatever you want to call it. So you've got  
20 probably -- unless something's like a wax, like the  
21 hentriaccontane, deltriacontane materials, you  
22 probably -- of the known components probably have  
23 half of them that have a physiological impact.

24   Q.   It's your testimony that when this document  
25 refers to, quote, "STRONGER PHYSIOLOGICAL IMPACT,"

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1 end quote, it is not referring to the impact from  
2 nicotine?

3 A. I have no idea what they were referring to.  
4 After all, they talked about flavor right ahead of  
5 it, talked about nicotine right ahead of it. Are  
6 they talking about all or both?

7 Q. Is it your understanding that --

8 A. And then the last -- the last bullet there says  
9 "DIFFERING FLAVOR EFFECTS DEPENDING UPON THE TYPE  
10 TOBACCO AMMONIATED," so you've got several things in  
11 a row. In fact, that whole six bullets could be  
12 construed as things that have -- pertain to the fifth  
13 one.

14 Q. Is it your understanding that more free nicotine  
15 would lead to stronger physiological impact?

16 A. As I said, you cannot measure free nicotine in  
17 smoke, and when it goes through the saliva, it  
18 doesn't matter what it is when it gets into your  
19 mouth.

20 Q. So your answer is no; your answer is yes?

21 What's your answer?

22 A. My answer is the way you're looking at it, the  
23 nicotine in smoke does not have the effect you're  
24 claiming.

25 Q. So it's your testimony that more free nicotine

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1 does not lead to stronger physiological impact?

2 A. Not in cigarette smoke because we can't measure

3 it. We don't know whether it's higher or lower.

4 Q. Now the Camel filter that was ammoniated in

5 1974, that was marketed to the underage market;

6 correct?

7 MR. BLANCATO: Objection.

8 MR. McDERMOTT: Object to the form of the

9 question.

10 A. As far as I know, sir -- and we might as well

11 get this straight -- I do not know whether Reynolds

12 ever marketed a cigarette to the under-18 group.

13 Q. I'm going to hand you a document that's been

14 previously marked as Plaintiffs' Exhibit 1037. This

15 is from a Mr. Hind to a Mr. C. A. Tucker. Do you

16 know who Mr. Tucker is?

17 A. He was one of the top brass at Reynolds. I

18 don't know exactly what his job was.

19 Q. It says "Our attached recommendation to expand

20 nationally the successfully tested," quote, "'Meet

21 the Turk' ad campaign and" our "new Marlboro-type

22 blend is another step to meet our marketing

23 objective: To increase our young adult franchise.

24 To ensure increased and longer-term growth for CAMEL

25 FILTER" -- and again Camel filter's the cigarette

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1 that you first added ammonia to in 1974; correct?

2 A. According to that other document. I don't know  
3 whether that was true or not.

4 Q. To in --

5 Do you doubt that?

6 A. Well you asked me whether -- I don't know -- it  
7 says it did, but I don't know whether it did or not.

8 Q. You don't have any basis to dispute that, do  
9 you?

10 A. No, I don't.

11 Q. Okay. It says to increase our younger adult --  
12 or strike that.

13 "To ensure increased and" long-term --

14 "longer-term growth for CAMEL FILTER, the brand must  
15 increase its share penetration among the 14 to 24"  
16 year "age group which have a new set of more liberal  
17 values and which represent tomorrow's cigarette  
18 business"; correct?

19 A. That's what it says.

20 Q. So it would appear that Camel filter, the  
21 tobacco that's just been -- the cigarette that's just  
22 received ammonia, is now being aimed in part at the  
23 underage market; correct?

24 A. I don't know if it was ever sold that way.

25 Q. Camel filter was sold, wasn't it?

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1 A. But I don't know if it was aimed at the 14- to  
2 24-year-old group.

3 Q. This would indicate it was going to be;  
4 correct?

5 MR. BLANCATO: Objection.

6 Q. Sir?

7 A. I don't know that.

8 Q. That's what the document says, isn't it?

9 MR. BLANCATO: Objection.

10 MR. McDERMOTT: Objection. You're arguing  
11 with the witness.

12 MR. BLANCATO: The document speaks for  
13 itself.

14 Q. Now when R.J. Reynolds ammoniated tobacco, did  
15 it do -- did it do so through a gaseous process?

16 A. I don't know what they ended up with.

17 (Plaintiffs' Exhibit 1063 was marked  
18 for identification.)

19 BY MR. O'FALLON:

20 Q. I've marked as Exhibit 1063 a document Bates  
21 stamp numbered 100888 0315 through 315A. Do you  
22 recognize this document?

23 A. I saw it many years ago and I saw it the other  
24 day.

25 Q. This is a document that you were copied on;

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1 correct?

2 A. Yes.

3 Q. It talks about "IMPROVED AMMONIATED

4 RECONSTITUTED SHEET"; correct?

5 A. Right.

6 Q. Is this the G7A that we've been talking about?

7 A. I don't know. I think if you read in the

8 memorandum, it says "Our present ammoniated sheet

9 uses ammonia gas." I believe that was G7A.

10 Q. Okay.

11 A. This is something different -- entirely  
12 different.

13 Q. Okay. So the -- at the time of this memo, your  
14 G7A process was using ammonia gas; correct?

15 A. I believe -- well all I know about it's what's  
16 written in here.

17 Q. Okay. And is that your understanding, that  
18 Philip Morris was using ammonia gas --

19 A. No.

20 Q. -- to ammoniate it's --

21 A. No.

22 Q. I'm sorry, you're right.

23 Is it true it was your understanding in this  
24 time period, 1978, that R.J. Reynolds was using  
25 ammoniated gas to create its -- and add its ammonia

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1 to its reconstituted sheet?

2 A. Yes. It was very inefficient.

3 Q. Okay. Did they ever change?

4 A. I don't know.

5 Q. Did they by the time you left?

6 A. I don't know.

7 Q. The memorandum states that "Nicotine transfer  
8 may be increased by the incorporation of ammonia in  
9 the form of the pectate amide in reconstituted  
10 tobacco sheet"; correct?

11 A. Yes.

12 Q. Now nicotine transfer is separate from free  
13 nicotine; correct?

14 A. Well nicotine is the whole thing. Nicotine --

15 Q. This --

16 This would indicate how much nicotine, whether  
17 it be in bound or free form, is actually transferred  
18 from the tobacco to the smoke; correct?

19 A. That's right.

20 Q. It's your understanding that nicotine when it  
21 transfers into tobacco smoke is oftentimes bound?

22 A. It's always bound.

23 Q. Well it wouldn't be if it were free nicotine;  
24 correct?

25 A. Well as I say, free nicotine's a calculated

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1 value. When you measure free nicotine or attempt to  
2 measure it coming out of the mouthpiece of a  
3 cigarette, you can't find it.

4 Q. Is or is there not free nicotine in tobacco  
5 smoke?

6 A. As calculated, yes, but you cannot measure it.

7 Q. Well but is it there or not? I mean, that's  
8 what I'm not -- I'm not clear about it. You've  
9 stated this numerous times. Is there or is there not  
10 free nicotine in tobacco smoke?

11 A. As if you calculate from the pH, you would say  
12 yes; but if you go to measure it coming out of the  
13 mouthpiece, you cannot find it.

14 Q. Well is it there or not? I mean, what's the  
15 fact? Is it more likely than not that there is free  
16 nicotine in tobacco smoke?

17 A. I would say that if you can't find it, it isn't  
18 there.

19 Q. So you still --

20 You still don't believe there's free nicotine in  
21 tobacco smoke?

22 A. Not really.

23 Q. Well it's either going to be free nicotine or  
24 bound nicotine; right?

25 A. It will be bound.

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1 Q. So you're saying 100 percent of the nicotine in  
2 tobacco smoke is bound nicotine?

3 A. That's what I'm saying. Mainstream cigarette  
4 smoke, make that.

5 Q. Is there free nicotine in side-stream tobacco  
6 smoke?

7 A. Yes.

8 Q. Why? Why is that different?

9 A. Because it's an entirely different smoke burning  
10 process.

11 Q. And how much free nicotine is in side-stream  
12 smoke?

13 A. Oh, it varies with how long the -- the -- after  
14 you collect it.

15 Q. Does it increase or decrease with smoke pH?

16 A. Well it's a matter of decomposition and -- and  
17 air and so on and so forth. It's really not too  
18 closely pH dependent.

19 Q. So it's your testimony that there is free  
20 nicotine in side-stream smoke, but there is not free  
21 nicotine in mainstream smoke?

22 A. Yeah, not -- no free nicotine in mainstream  
23 smoke that you can measure.

24 Q. But see, that's the difference, and that's why I  
25 want to nail this down. I mean, is it there or not?

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1 The fact that you can't measure something doesn't  
2 necessarily mean it's not there, so what's your  
3 testimony? Is there free nicotine in mainstream  
4 smoke or not? I need to know that.

5 A. Well you wouldn't let me draw my diagram. I  
6 think I could have explained it to you, but --

7 Q. Is it there or not? Would you answer my  
8 question.

9 A. If you let me draw the diagram, I'll explain it  
10 doesn't make any difference whether it's there or  
11 not.

12 Q. So it's your testimony that it doesn't matter  
13 whether there's free nicotine or not in mainstream  
14 smoke?

15 A. It doesn't matter how much free nicotine is  
16 there as long as the pH isn't above 7.

17 Q. Now let's go back to my question.

18 Is there or is there not free nicotine in  
19 mainstream smoke?

20 A. If you're using a calculated value, I'd say yes;  
21 if you're using a measured value, no.

22 Q. And the document I've just shown you confirms  
23 that the process that R.J. Reynolds was using to add  
24 ammonia to its reconstituted sheet was a gaseous  
25 ammonia process; correct?

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1 A. Yes, that's what it says.

2 (Plaintiffs' Exhibit 1064 was marked  
3 for identification.)

4 BY MR. O'FALLON:

5 Q. I've marked as Exhibit 1064 a document Bates  
6 stamp numbered 50166 1154 through 50166 1156.

7 Have you seen this document?

8 A. Yes, I've seen this.

9 Q. This is a document from Chin K. Lee and  
10 Elizabeth A. Reed; correct?

11 A. Yes.

12 Q. It talks about "AMES TEST ON SMOKE  
13 CONDENSATES -- A SUMMARY"; correct?

14 A. Right.

15 Q. What's the purpose of an Ames test on smoke  
16 condensate, sir?

17 A. Well the Ames test is a very rapid test to  
18 determine the mutagenicity of a compound or system,  
19 whatever.

20 Q. And what is mutagenicity?

21 A. It's a cellular change that -- this is done with  
22 a bacterium called salmonella typhimurium, and it's  
23 what happens to the -- the bacteria -- bacteria  
24 mutates and you measure the mutation, the degree of  
25 mutation.

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1 Q. And mutation is not particularly good in a cell,  
2 is it, sir?

3 A. No. It's classified as a physiological  
4 response, I guess.

5 Q. An adverse physiological response at that;  
6 correct?

7 A. Well that -- that is what the test was designed  
8 for, was to do something in two days that used to  
9 take two and a half years with mouse skin painting.

10 Q. So what you're basically doing is testing a  
11 substance to see if it is more physically harmful  
12 than another control substance; correct?

13 A. Well you could also test it and find it didn't  
14 work.

15 Q. But the fact is, is that if you test a substance  
16 and you find that it has an increased mutagenicity  
17 level on the Ames test, that is not considered good;  
18 correct?

19 A. That's right.

20 Q. "This memorandum summarizes all the interoffice  
21 memoranda written by the authors since 1978 to date  
22 on Ames testing of cigarette smoke/condensates and/or  
23 specific smoke condensate components"; correct?

24 A. Yes.

25 Q. On the second page under summary number two,

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1 there's an "Ames Test on Smoke Condensate, memo to  
2 Mr. J. A. Giles," 1979. "This memo deals with the  
3 comparison of the mutagenicities of ammoniated  
4 flue-cured tobacco and a non-ammoniated flue-cured  
5 tobacco control"; correct?

6 A. That's right.

7 Q. The "Ammoniation increased the mutagenicity of  
8 flue-cured tobacco"; correct?

9 A. It did.

10 Q. In other words, ammonia made it more  
11 physiologically active; correct?

12 A. That's right.

13 Q. And that's an adverse finding on this test;  
14 correct?

15 A. Well it depends how you look at it, sir.

16 Q. Well how about if you're a smoker and you're  
17 going to breathe it into your lungs?

18 A. Well for example, flue-cured tobacco in mouse  
19 skin painting tests is the highest of all the types  
20 of tobacco, but it has the lowest mutagenicity.

21 Burley tobacco smoke condensate has the lowest effect  
22 on mouse skin but has the highest mutagenicity in the  
23 Ames test.

24 Q. Ultimately what you're aiming for is no  
25 mutagenicity; correct?

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1 A. Well I don't think you'd ever get that.

2 Q. A very low level of mutagenicity; correct?

3 A. Yeah, right.

4 Q. Because any mutagenicity indicates some  
5 potential for physical harm to the smoker; correct?

6 A. Well I'm not sure of that because the last time  
7 you ate a steak, you were ingesting mutagenetic  
8 compounds that are 20,000 times what you get from one  
9 cigarette.

10 Q. What do you base that on, sir? Where's that at?

11 A. The Japanese work --

12 Q. Yeah?

13 A. -- with cooked-food mutagens.

14 Q. Why don't you give me that again.

15 A. The Japanese work on food stuffs.

16 Q. So it's your testimony that steak is more  
17 carcinogenic than cigarettes; correct?

18 A. There are compounds in steak that are more  
19 carcinogenic -- mutagenic than in cigarette smoke.

20 Q. And steak's worse for me than cigarette smoke?

21 A. Well it depends on whether you believe that  
22 mutagenicity's going to hurt you.

23 Q. And of course you believe that cigarettes are  
24 completely safe, so steak and cigarettes are equally  
25 safe in your opinion as well?

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1                   MR. BLANCATO: Object to the form of the  
2 question.

3                   MR. McDERMOTT: I object to the question.

4                   MR. LEE: He never answered it.

5 Q. Are steak and cigarettes equally safe?

6 A. Probably.

7 Q. Is steak as likely to cause lung cancer as  
8 cigarettes?

9 A. Not per se.

10 Q. So it's still more likely that cigarettes cause  
11 lung cancer than steaks would cause lung cancer;  
12 correct?

13 A. I don't think either work, but if you want an  
14 explanation of how a steak could -- polycyclics in  
15 steak could cause lung cancer, there is an  
16 explanation.

17 Q. Has there been any epidemiology that links steak  
18 and lung cancer?

19 A. Not that I know of.

20 Q. How many epidemiology studies link smoking and  
21 lung cancer?

22 A. Oh, I don't know.

23 Q. Hundreds?

24 A. I think you said something about 34 or something  
25 this morning.

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1 Q. Well that was back in 1962. How many do you  
2 think there are today?

3 A. I have no idea.

4 Q. Is it fair to say there's numerous epidemiology  
5 studies that link cigarette smoking to lung cancer?

6 A. Yes, there are numerous that don't.

7 Q. Move to strike as nonresponsive.

8 Are there numerous epidemiology studies that  
9 link cigarette smoking to lung cancer?

10 MR. McDERMOTT: Objection, asked and  
11 answered.

12 A. I already answered the question, I thought.

13 Q. Is your answer yes?

14 A. That's what I said. I said yes, sir.

15 Q. This also indicates, going back to the document,  
16 that the method of ammoniation, however, affected the  
17 mutagenicity of the final products; correct?

18 A. That's right.

19 Q. Let's look at number six on page 1156.

20 A. Uh-huh.

21 Q. This was a comparison of two ammoniation  
22 methods, correct, gaseous ammonia versus aqueous  
23 ammonia?

24 A. That's right.

25 Q. "The results are consistent with previous

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1 tests:" Gas -- "Gaseous ammoniation produced tobacco  
2 which yielded 'tar' whose mutagenicity was 43 percent  
3 higher than the control 'tar"'; correct?

4 A. That's right.

5 Q. That would mean that the --

6 A. Did you read the next sentence, sir?

7 Q. Would you let me finish my question.

8 That would mean that the

9 gaseous-ammonia-produced tobacco had a mutagenicity  
10 43 percent higher than regular cigarette smoke;  
11 correct?

12 A. Well this -- I don't know what cigarettes they  
13 were using here.

14 Q. They were using a control cigarette of some  
15 type, weren't they?

16 A. Yeah, but that -- I don't know what the control  
17 was.

18 Q. Well what did they usually use as control  
19 cigarettes, sir?

20 A. Well they could use flue cured. They could use  
21 a blended cigarette. They could use the Kentucky  
22 1R1.

23 Q. Is the Kentucky 1R1 the one that's usually used  
24 as a control cigarette?

25 A. Yeah, that's what it was designed for.

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1 Q. Right. And that's designed to be a control to  
2 be used by people in specific studies; correct?

3 A. Yes. I don't know what they used here frankly.

4 Q. Well the memo that it's based on was originally  
5 to you.

6 A. I think the next line is the important line.

7 Q. So anyhow, the gaseous ammoniation, which is the  
8 process that RJR used, produced tobacco which yielded  
9 tar whose mutagenicity was 43 percent higher than the  
10 control; correct?

11 A. That's right. But however, as these were put in  
12 the Camel cigarette, the difference washed out.

13 Q. Well it doesn't say that, does it, sir?

14 A. That's right.

15 Q. It says the difference was negligible. It  
16 doesn't say it was nonexistent, does it?

17 A. Negligible, okay. It says "negligible."

18 Q. It doesn't say it's nonexistent?

19 A. That's right.

20 Q. It's as mutagenetic as other tobacco smoke?

21 MR. McDERMOTT: Object to the form of the  
22 question.

23 Q. Whatever the control is, you're not sure what  
24 that is.

25 A. No. I gather any regular Camel versus one with

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1 this stuff in it were the same or negligible  
2 difference.

3 Q. But it would be true that depending on the level  
4 at which you incorporate the ammoniated tobacco would  
5 depend -- would affect the level of mutagenicity;  
6 correct?

7 A. I'd have to see the experiments, sir.

8 Q. Well you were copied on them.

9 A. Well I'm -- I read you what they say here.

10 Q. Well is that basically your understanding, is  
11 that the level of ammonia inclusion affects the  
12 mutagenicity?

13 A. It could. In this case it -- it didn't happen  
14 to.

15 Q. Well but again we don't know how much ammoniated  
16 tobacco was included in this particular --

17 A. That's right, we don't.

18 Q. -- Camel filter blend that was tested; correct?

19 A. I imagine it was the same level as G7  
20 originally.

21 Q. But we know that at a hundred percent ammoniated  
22 tobacco, we'd certainly have a much higher  
23 mutagenicity level; correct?

24 A. Yes.

25 MR. BLANCATO: Object to the form of the

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1 question.

2 MR. McDERMOTT: Objection.

3 (Plaintiffs' Exhibit 1065 was marked  
4 for identification.)

5 BY MR. O'FALLON:

6 Q. 1065 is a document Bates stamp numbered 50505

7 0442 through 444. Do you recognize this document?

8 A. Yes, sir.

9 Q. This document is dated October 29th, 1980 and  
10 it's to you; correct?

11 A. Yes.

12 Q. It's an Ames test on ammoniated tobacco;  
13 correct?

14 A. That's right.

15 Q. There's two processes by which the ammonia is  
16 applied to the cigarette samples; correct?

17 A. Right.

18 Q. Process A is an aqueous process; correct?

19 A. Yes.

20 Q. I assume that means it uses water?

21 A. Right.

22 Q. Process B is a gaseous process; correct?

23 A. Right.

24 Q. And this is the process used at your G7 process  
25 condition; correct? I'm sorry, it says "Gaseous

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1 ammonia in denic plant under G-7A process  
2 condition."

3 A. That's right.

4 Q. The conclusion on page three is that the  
5 ammoniated process tobacco by Process B is 43 percent  
6 more mutagenic than the control; correct?

7 A. Yes, that's what it says.

8 Q. It then says that Process B contributed no added  
9 mutagenic activity; correct?

10 A. Where do you read?

11 Q. It's right after it. It says "while Process A  
12 contributed no added mutagenic activity."

13 A. Okay, the next sentence is what you're reading.

14 Q. Yes. It says "It was surprising, however, that  
15 the effect of ammoniation by Process B has completely  
16 disappeared in CAMEL Filter blend. Whether this  
17 disappearance is due to simple dilution effect or by  
18 some interaction cannot be answered at this time";  
19 correct?

20 A. That's what it says.

21 Q. Did you ever figure out why that was?

22 A. I can't think of whether we did or not, sir.

23 Q. Isn't that something you'd want to know?

24 A. I imagine somebody was looking at it.

25 Q. Isn't that something you should actually know

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1 before you ever add ammonia to a cigarette?

2 MR. McDERMOTT: Object to the form of the  
3 question.

4 A. Well one of the things, that we didn't have this  
5 test very long.

6 Q. You could have bought this test someplace,  
7 couldn't you have?

8 A. Could have.

9 Q. The Ames test has been around for a while,  
10 hasn't it?

11 A. Well it was first reported in 1974, but it  
12 wasn't too common for some years.

13 Q. Did you do mouse skin painting on ammoniated  
14 tobacco before you introduced it in your 1974 Camel  
15 filter?

16 A. No, they didn't. They didn't.

17 Q. So at the time you introduced ammonia into your  
18 1974 Camel filter cigarette, you didn't have any idea  
19 whether the ammonia would make that tobacco more  
20 biologically active or not; correct?

21 A. Well we knew a lot about the chemistry, and over  
22 the years from our work and other people's work you  
23 can get a pretty good judge of what was going to  
24 happen.

25 Q. So you knew in 1974 that ammoniated tobacco

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1 would probably be more mutagenic?

2 A. No. We probably would have thought it would be  
3 no different from the mouse numbers.

4 Q. But you never proved that?

5 A. No. I say we -- from long experience in looking  
6 at things not only that we had done but had done in  
7 other laboratories and mouse skin painting and so on,  
8 you get a pretty good feel for the  
9 chemistry-versus-biology situation.

10 Q. Has --

11 A. Mutagenicity hadn't been used that long, so we  
12 really didn't have that much experience with it.

13 Q. Has mouse skin painting ever been done on  
14 ammoniated tobacco?

15 A. Not that I know of.

16 Q. So as we sit here today, R.J. Reynolds doesn't  
17 know whether or not ammoniated tobacco causes more  
18 tumors on mouse skin painting than regular tobacco;  
19 correct?

20 A. No. Don't know whether it causes less either.

21 Q. Isn't that something you should know before you  
22 sell a product to the public?

23 A. Now that I think of it -- sorry, I didn't mean  
24 to talk over you.

25 Now that we think about it, I'm sure you're

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1 familiar with the NCI Tobacco Working Group study.  
2 It took ten years, cost \$32 million of your money and  
3 mine. If you look in the results of the study on  
4 that where ammoniated tobacco was tested, as I  
5 remember, the tumorigenicity went down about 10 or 12  
6 percent for the ammoniated tobacco versus the  
7 control.

8 Q. Move to strike as nonresponsive.

9 Isn't it something you should know before you  
10 ever place a product on the market, whether it's  
11 going to be more or less harmful to the individual?

12 MR. McDERMOTT: Objection.

13 MR. BLANCATO: Objection. You're arguing  
14 with the witness.

15 A. Well that study I'm talking about was done in  
16 1976, so we did know the effect -- I had forgotten  
17 about it -- we did know the effect of ammoniated  
18 tobacco fairly early.

19 Q. You're saying in 1976 that study was completed?

20 A. Yes.

21 Q. And they tested RJR ammoniated tobacco?

22 A. No, they tested a Philip Morris ammoniated  
23 tobacco.

24 Q. And that wasn't ammoniated by the gaseous  
25 process, was it?

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1 A. That was ammoniated by hydrogen phosphate.

2 Q. They didn't use tobacco that was ammoniated by  
3 the process that in your 1980 study resulted in a  
4 mutagenicity 43 percent greater than the control, did  
5 they?

6 A. No, they did not use that tobacco.

7 MR. BLANCATO: Objection.

8 THE WITNESS: I'm sorry.

9 Q. And you at R.J. Reynolds never did mouse skin  
10 painting on your gaseous ammoniated tobacco; correct?

11 A. We did not.

12 Q. And as you sit here today, you can't testify  
13 that ammoniated tobacco is less harmful based on  
14 mouse skin painting; correct?

15 A. I don't know whether it's less harmful or more  
16 harmful.

17 Q. But we do know that it's at least 43 percent  
18 more mutagenic than regular tobacco on the Ames test;  
19 correct?

20 MR. McDERMOTT: Objection.

21 MR. BLANCATO: Objection.

22 A. Say that again, sir.

23 Q. We do know that it's 43 percent more mutagenic  
24 than the control based on your own Ames test;  
25 correct?

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1 MR. BLANCATO: Objection.

2 MR. McDERMOTT: Objection.

3 A. That's what's written on the report.

4 Q. In fact, what Chin K. Lee states in the final  
5 paragraph is "In summary, the ammoniated tobacco by  
6 Process B definitely produces higher mutagenic  
7 activity in smoke condensate"; correct?

8 A. But he also goes on to add this difference was  
9 greatly diminished when the tobacco were used in  
10 Camel filter blend.

11 Q. But he doesn't say it was eliminated, does he?

12 A. No. The mutagenicity test, sir, when you're  
13 trying to quantitate it, is very -- well in fact  
14 Dr. Lee was the first one to ever work out a  
15 quantization, way to do it. It used to be things  
16 were mutagenic or not mutagenic, and he came up with  
17 the way to do it in a quantitative way.

18 Q. Do you know whether there were follow-up tests  
19 done to this 1980 study?

20 A. I don't know.

21 Q. Do you know --

22 A. If there were, I've forgotten.

23 Q. Do you know the level of ammoniated tobacco used  
24 in R.J.R. cigarettes today?

25 A. I have no idea. I was -- never knew the blend

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1 composition of any cigarette we ever made.

2 MR. O'FALLON: Do you want to take a quick  
3 break and then settle into the last --

4 MR. BLANCATO: That's fine.

5 THE REPORTER: Off the record, please.

6 (Recess taken.)

7 (Plaintiffs' Exhibit 1066 was marked  
8 for identification.)

9 BY MR. O'FALLON:

10 Q. I've marked as Exhibit 1066 a document Bates  
11 stamp numbered 50152 2719 through 2726 entitled  
12 "Clarification of my 07/22/80 Memo on Nicotine  
13 Additive."

14 Have you seen this document previously?

15 A. Yes.

16 Q. This is a document that was written by you;  
17 correct?

18 A. Yes.

19 Q. And it was written on September 8th of 1980;  
20 correct?

21 A. Right.

22 Q. Ultimately it's going to go to Mr. Horrigan;  
23 correct?

24 A. Well Dr. Morse was very new at that point and  
25 had asked some questions in this regard. I -- he had

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1 suggested he wanted to talk to Horrigan and  
2 Mr. Tompson about it, so it was --

3 Q. Who was Mr. Horrigan at this time in 1980?

4 A. He was the chief, CEO, I believe, of Reynolds  
5 Tobacco.

6 Q. So in other words, he's the head of Reynolds  
7 Tobacco at that time; correct?

8 A. Right.

9 Q. And basically you were going to be sending this  
10 information to the head of Reynolds Tobacco;  
11 correct?

12 A. I was sending it to Dr. Morse.

13 Q. But you suspected that he was going to go ahead  
14 and forward it on to Mr. Horrigan; correct?

15 A. He had said he wanted to talk to this with  
16 Horrigan and Tompson.

17 Q. In any event, you knew that it was possible that  
18 this memo was going to be sent on to Mr. Horrigan;  
19 correct?

20 A. Yes.

21 Q. And certainly it --

22 A. Well I'm not sure. Okay, yes.

23 Q. And certainly if you're going to send  
24 information to the head of the company, you're going  
25 to make sure that information is accurate; correct?

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1 A. I'd like to think so.

2 Q. You're certainly not going to misstate anything  
3 in that memo; correct?

4 A. Right.

5 Q. Let's go to the second page of the memo or  
6 actually the first page of the full memo after the  
7 cover sheet. You state that your July 22nd memo  
8 assumed that the reader was familiar with PM's and  
9 our past activities in developing nicotine  
10 technology; correct?

11 A. Right.

12 Q. Then you say "To put the information in that  
13 memo in perspective, the following background is  
14 presented:

15 "Development of nicotine technology involves  
16 the study of a host of factors, chief among" them  
17 "which are ... 'Tar' delivery"; correct?

18 A. Right.

19 Q. "Nicotine delivery"?

20 A. Right.

21 Q. "Tar/nicotine ratio"?

22 A. Right.

23 Q. And "Nicotine satisfaction"?

24 A. Right.

25 Q. That would be the smoker's satisfaction for

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1 nicotine; correct?

2 A. Yes.

3 Q. And you state that nicotine satisfaction is  
4 dependent on puff count; right?

5 A. Right.

6 Q. Puff volume?

7 A. Right.

8 Q. Tar/nicotine ratio?

9 A. Right.

10 Q. Total nicotine delivery?

11 A. Right.

12 Q. Nicotine delivery per puff?

13 A. Right.

14 Q. Plus, quote, "free" nicotine per puff; correct?

15 A. Right.

16 Q. So in other words, in 1980 you're writing a memo  
17 that indicates that there is free nicotine in  
18 cigarette smoke; correct?

19 A. As calculated, right.

20 Q. You then state at parenthetical A that "Most, if  
21 not all, nicotine in tobacco is present as a salt,  
22 the reaction product of nicotine and an acid,  
23 generally referred to as 'bound' nicotine"; correct?

24 A. Right.

25 Q. "Most of the nicotine in smoke is present as a

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1 salt or 'bound' form and a small fraction is present  
2 as 'free' nicotine"; correct?

3 A. Right.

4 Q. You don't say "a small calculated fraction," do  
5 you?

6 A. No, I don't, sir.

7 Q. You don't tell them you can't measure free  
8 nicotine, do you?

9 A. No.

10 Q. You make a factual assertion that a small  
11 fraction is present as free nicotine; correct?

12 A. Right.

13 Q. You then go on to state that the percent of free  
14 nicotine depends on smoke pH; correct?

15 A. Right.

16 Q. That's exactly what Mr. Teague was saying back  
17 in 1972; correct?

18 A. This was a summary of everybody's work.

19 Q. And you had all the work as of 1980 available to  
20 you at the time you made this summary; correct?

21 A. Well if you look, there weren't very many people  
22 were showing what Dr. Rix had shown.

23 Q. The fact of the matter is you had that  
24 information available at the time you wrote this  
25 memo; correct?

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1 A. Yes, that's right.

2 Q. You don't mention that work in here, do you,  
3 sir?

4 A. No, I don't.

5 Q. Nowhere do you mention that, do you?

6 A. No.

7 Q. And what you did in fact was state and  
8 apparently confirm exactly what Mr. Teague stated in  
9 his 1972 memo, which is that pH and free nicotine  
10 track one another; correct?

11 A. I guess I did.

12 Q. You go on to say in that same footnote, quote,  
13 "'Free,'" end quote, "nicotine is absorbed more  
14 rapidly by the smoker than is 'bound' nicotine";  
15 correct?

16 A. That's what we thought at the time.

17 Q. Again you had Mr. Rix's memo available when you  
18 wrote this; correct?

19 A. Yeah.

20 Q. It had been copied to you; correct?

21 A. Right.

22 Q. It preceded this memo; correct?

23 A. That's right.

24 Q. This memo is going to the CEO of R.J. Reynolds  
25 Tobacco Company; correct?

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1 A. Right.

2 Q. You're certainly giving the CEO of R.J. Reynolds  
3 Tobacco Company your best thoughts on free nicotine  
4 at this time; correct?

5 A. Right.

6 Q. You then go on to state that, quote, "... we  
7 have," quote, "'caught up' to PM insofar as its  
8 current use in the Marlboro of nicotine technology is  
9 concerned"; correct?

10 A. Right.

11 Q. In other words, at this point in time you felt  
12 that you could control nicotine and free nicotine  
13 just as well as PM; correct?

14 A. Well that's what we thought.

15 Q. It doesn't mean you necessarily knew everything  
16 about Marlboro, but at least that piece, the free  
17 nicotine piece, you thought you knew; correct?

18 A. Right. And of course what we hadn't included  
19 this -- in this thing was the flavor aspect.

20 Q. On the fourth page of this memo you state that  
21 "The WINSTON B closely matches the Marlboro in ...  
22 smoke properties indicated"; correct?

23 A. What page are you on, sir?

24 Q. I'm on 2723.

25 A. 2723, okay.

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1 Q. Correct?

2 A. Yeah.

3 Q. And then if you look up, there's actually a  
4 graph and data up there that compares the Winston B  
5 and the Marlboro; correct?

6 A. Right.

7 Q. The Winston B and the Marlboro had the same  
8 nicotine; correct?

9 A. Right.

10 Q. Basically the same tar/nicotine ratio?

11 A. Uh-huh.

12 Q. And basically the -- the same free nicotine;  
13 correct?

14 A. As calculated, right.

15 Q. And again you don't say that, do you, there?

16 A. No.

17 Q. Nowhere in this memo do you say that that's just  
18 a calculated value?

19 A. No.

20 Q. Nowhere in this memo do you indicate that free  
21 nicotine does not exist in mainstream tobacco smoke,  
22 do you?

23 A. I don't think I do.

24 Q. In fact, you say "The graphs show how closely  
25 matched (except for 'free' nicotine) the WINSTON and

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1 Marlboro were in 1970"; correct?

2 A. As calculated.

3 Q. Again you don't use the word "calculated" there,

4 do you, sir?

5 A. No.

6 Q. You say these disparities gradually increased

7 between 1971 and 1978; correct?

8 A. Yes.

9 Q. But then they narrowed essentially to a no  
10 difference status in 1980 with the Winston B;  
11 correct?

12 A. Right.

13 Q. And is that --

14 Is the Winston B the one you eventually  
15 ammoniated?

16 A. I think it had ammoniated tobacco in it, sir,  
17 yeah.

18 Q. Well, why don't we go back quickly.

19 MR. O'FALLON: Why don't we go off the  
20 record, let me just find that document.

21 THE REPORTER: Off the record, please.

22 (Discussion off the record.)

23 BY MR. O'FALLON:

24 Q. I'd ask you to refer -- to refer back to the  
25 exhibit we've marked as Exhibit 1062 and specifically

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1 the second page of that exhibit at the top.

2 A. Uh-huh.

3 Q. Do you see that?

4 A. Right.

5 Q. This document indicates that "AMMONIATED SHEET  
6 WAS INTRODUCED INTO THE WINSTON KS PRODUCT IN 1979";

7 correct?

8 A. Yes.

9 Q. And that "MARKET TESTS INDICATED SIGNIFICANT  
10 PRODUCT IMPROVEMENT"; correct?

11 A. Right.

12 Q. That would correspond with the information  
13 you're going to -- that may be sent to Mr. Horrigan  
14 in what we've now marked as Exhibit 1066 --

15 A. Uh-huh, right.

16 Q. -- on page four there; correct?

17 A. Right, yes.

18 Q. Okay. One of the concerns you had and one of  
19 the reasons you were also writing this memo is you  
20 were concerned that Philip Morris may be devising a  
21 new nicotine technology; correct?

22 A. Well we thought that they were.

23 Q. Especially as regards this new Cambridge --  
24 Cambridge, I'm sorry, Cambridge cigarette?

25 A. That's right.

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1 Q. In fact, you were concerned that Philip Morris  
2 was actually adding nicotine to that product;  
3 correct?

4 A. Well it looked like that, but we weren't sure.

5 Q. Okay. And that's part of the reason you're  
6 writing the memo; correct?

7 A. Right.

8 Q. You then talk on page four again below the chart  
9 we've been looking at about the ways to transpose  
10 nicotine from one tobacco material to another prior  
11 to incorporation into a blend; correct?

12 A. Where are you now?

13 Q. I'm on that page four. I'm down at the last  
14 sentence of the second paragraph. I'm sorry, I'm  
15 right here. We're back up at the document with the  
16 chart. It says page "4" here at the top.

17 A. Oh, you said "chart." That's a table, sir.

18 Q. That's a table. I'm sorry. I'm sorry I misled  
19 you there. That was --

20 A. Well I --

21 Q. You and I are --

22 A. I looked at the chart here, thought where is the  
23 chart, and then I thought there's nothing written on  
24 there.

25 Q. I guess I was referring to a table, and you're

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1 right, it's labeled as "TABLE" and I misspoke.

2 A. Which paragraph are you on?

3 Q. The second paragraph, the last sentence of the  
4 second paragraph.

5 A. There, our speculation.

6 Q. You state, quote, "There are several ways to  
7 transpose nicotine from one tobacco material to  
8 another, prior to incorporation in a blend";  
9 correct?

10 A. Yes.

11 Q. This was technology you knew of, you RJR knew  
12 of, at this time in 1980; correct?

13 A. Yes, yes.

14 Q. One of those methods you go on in the next  
15 paragraph to talk about; correct? I misspoke.

16 A. Yes.

17 Q. It's one of those methods you go on to talk  
18 about. You state, quote, "One involves the transfer  
19 of nicotine from a high-nicotine tobacco to a  
20 low-nicotine tobacco stem sheet by treatment of the  
21 sheet with an acidic material"; correct?

22 A. Yes.

23 Q. "Followed by heating the tobacco and  
24 acid-treated material together"?

25 A. Right.

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1 Q. "Nicotine vaporizes from the tobacco and is  
2 trapped on the sheet in the form of" an -- "the  
3 nicotine salt of the acidic material used."

4 A. Yes.

5 Q. Is that something you were doing at R.J.  
6 Reynolds?

7 A. No, we were looking at it.

8 Q. Do you --

9 A. I don't -- as far as I know, we never used it.

10 Q. Okay.

11 A. What we were interested in, sir, if you let me  
12 continue just a sec, is that when you have stem and  
13 tobacco material and sheet material, tobacco material  
14 in the same cigarette, it would be much better if you  
15 took some of those nicotine out of the flue cured and  
16 put it on the G7 so that everything was fairly level  
17 in nicotine, because when tobacco rod burns, you get  
18 all sorts of funny things happening with different --  
19 tobacco rod materials with different nicotine levels  
20 and it's better to even them all out. That's what we  
21 were really looking at.

22 Q. And that's basically a -- a method of  
23 manipulating nicotine; correct?

24 A. Yeah, it's manipulating. It's not increasing  
25 it, though.

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1 MR. BLANCATO: Object.

2 Q. But it is manipulating it?

3 MR. BLANCATO: Objection.

4 MR. McDERMOTT: Object to the form of the  
5 question.

6 Q. It's making it different than it was naturally  
7 occurring; correct?

8 A. Yes.

9 Q. It's different than simply chopping up a tobacco  
10 leaf, rolling it in a paper and selling it; right?

11 A. Well I guess that is right, and of course that's  
12 what we do anyway when we separate the stem from the  
13 lamina.

14 Q. And in your reconstituted tobacco process, you  
15 actually take the nicotine out of the stem and the --  
16 correct?

17 A. Some of it gets out because the whole thing's  
18 water washed.

19 Q. So you take the water wash and you take the  
20 water through the stem, but then you recover that  
21 water, correct, and the extracts that are in that  
22 water?

23 A. In some instances, but for many years we  
24 didn't.

25 Q. But in more recent vintage you have; correct?

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1 A. I don't know about that. I know that one time  
2 we used to have a huge sewer charge because we were  
3 putting so much stuff in the water system.

4 Q. In 1976 through 1978 with your G7A process, you  
5 were actually taking that extract and adding it back  
6 on the reconstituted sheet in addition to ammonia;  
7 correct?

8 A. I have no idea about that. I have very little  
9 knowledge of manufacturing procedures.

10 Q. On the next page, which is Bates stamp numbered  
11 724, you state that "Another method to accomplish the  
12 elevation of nicotine in tobacco sheet material is to  
13 recover nicotine (plus flavorful materials) from a  
14 tobacco expansion process or a denic process by  
15 trapping the nicotine in acid (phosphoric acid ?) and  
16 applying the nicotine salt to the sheet material."

17 A. Yeah.

18 Q. Do you know whether that was ever done by RJR?

19 A. The only time we ever trapped -- well no, I  
20 don't, but we did do it one time, is when we were  
21 looking at puff tobacco, expanded tobacco, and we did  
22 trap the effluent from the puffing system, and that  
23 sample was used by some of the researchers to do the  
24 most complete composition of flue-cured tobacco ever  
25 done and reported in the literature.

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1 Q. What year was that?

2 A. Probably the early '70s. I forgot. The RDM  
3 was -- RDR was by Robert Lloyd.

4 Q. You suspected that the process we've just talked  
5 about in your paper was the process that PM was using  
6 in Cambridge; correct?

7 A. We had some people who were very good at trying  
8 to figure out things, and that's what they  
9 suspected.

10 Q. Okay.

11 A. We didn't know for sure.

12 Q. And this would not only --

13 This process that you're referring to in this  
14 memo that you thought PM would use is not only a  
15 manipulation process, it's also an elevation process  
16 to increase the nicotine in that sheet; correct?

17 MR. McDERMOTT: Object to the form of the  
18 question.

19 A. It could be used to elevate it, as far as I  
20 know. About manipulation, if I may digress just a  
21 second, you know, when you buy tobacco in the  
22 marketplace, the first thing you do with it is stem  
23 it, and that -- you take the leaves that you buy.  
24 They're very dry. You put them in moisture, warm  
25 temperature. You take the stems out. They run down

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1 a long conveyor belt.

2       Then you store them. You dry them out and store  
3 them for maybe a year and a half and they -- the  
4 flavor improves and so on. Then when you take them  
5 out, you again moisten them and warm them, run them  
6 on a conveyor belt. Then if you puff part of it or  
7 whatever, every step in the process that I know of at  
8 R.J. Reynolds drops the nicotine from what you bought  
9 at the auction market.

10 Q. Move to strike as nonresponsive.

11       The ammonia you add to your reconstituted sheet,  
12 that isn't in the tobacco that you buy on the auction  
13 block, is it?

14 A. No, neither is some of the casing materials.

15 Q. So you add casing materials to your product, you  
16 add ammonia to your product, and you carefully  
17 control the nicotine level that the final product has  
18 when it reaches the consumer; correct?

19           MR. McDERMOTT: Object to the form of the  
20 question.

21 A. Yes, we --

22           THE WITNESS: Pardon?

23           MR. McDERMOTT: I object to the form of the  
24 question. You may answer.

25 A. As I said before, if we have a high-nicotine

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1 tobacco, we take the nicotine out so that we try to  
2 maintain it from year to year. If you look at the  
3 tar and nicotine chronology, as the tar went down,  
4 the nicotine went down, but the tobacco nicotine is  
5 hardly unchanged over the years.

6 Q. But you also manipulate the nicotine to make  
7 sure that you give the consumers a certain kick of  
8 nicotine and that they get a certain amount of  
9 satisfaction when you add that ammonia; correct?

10 MR. McDERMOTT: Object.

11 A. Well most of the time tar and nicotine follow  
12 each other.

13 Q. So whatever nicotine the smoker gets, they're  
14 also going to get the same amount of tar; correct?

15 A. Not the same amount, but --

16 MR. McDERMOTT: Objection.

17 A. -- proportionally so in most instances.

18 Q. But the fact of the matter is you still control  
19 the nicotine, the free nicotine, that actually is  
20 going to get to the smoker; correct?

21 MR. BLANCATO: Objection.

22 MR. McDERMOTT: Object to the form of the  
23 question, compound.

24 A. Well we don't control it. He controls it.

25 Q. The smoker controls the amount of nicotine he

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1 ultimately gets, and we'll get to that question, but  
2 you at RJR by adding ammonia, you control the level  
3 of free nicotine that smoker gets; correct?

4 MR. McDERMOTT: Objection.

5 A. Well I'd say we've been through the free  
6 nicotine before.

7 Q. Your answer would be yes?

8 A. Well the answer is that the calculated free  
9 nicotine may be altered.

10 Q. Is controlled by the addition of ammonia;  
11 correct?

12 A. Right. It could be controlled by the addition  
13 of acid.

14 Q. And it's increased by the addition of ammonia;  
15 correct?

16 A. In a calculated way, yes.

17 Q. Whereas, the addition of acid might lower the  
18 amount of free nicotine; correct?

19 A. Right. We know that from early work with  
20 high-nicotine tobaccos.

21 Q. Now you state in footnote D that "RJR  
22 denicotinizes a part of its tobaccos from  
23 high-nicotine crop years but does not discard the  
24 nicotine"; correct?

25 A. Right.

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1 Q. Where does the nicotine go?

2 A. Some of it we sold, as far as I know.

3 Q. Even in 1980 you were selling nicotine?

4 A. I'm not sure.

5 Q. Did you ever add any of it back to the  
6 reconstituted sheet?

7 A. Not that I know of.

8 Q. But you can't testify that it didn't happen;  
9 correct?

10 A. Right.

11 Q. You then talk about on again page 724 how Philip  
12 Morris uses two sources of ammonia in its blends;  
13 correct?

14 A. That's what we thought.

15 Q. And what were those two sources?

16 A. Are you talking about the two sheet materials?

17 Q. I'm actually asking you what you're referring  
18 to. I'm not really positive.

19 A. Oh, I think what I was talking about there,  
20 Philip Morris were using ammonium carbonate puff  
21 tobacco and of course an ammonia-treated sheet, so  
22 they had two blend entities that were involved with  
23 ammonia. And as I reported before, the NCI study  
24 showed the ammonia puff tobacco that Philip Morris  
25 had was reduced in its chemistry and its biological

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1 effect to mouse skin painting and is one of the eight  
2 technologies considered significant in the design of  
3 a less-hazardous cigarette.

4 Q. And again that's a different technology than the  
5 technology R.J. Reynolds applied to ammoniate its  
6 tobacco; correct?

7 A. Right. I doubt if it makes that much difference  
8 frankly.

9 Q. On the last page of this memo, 726, you talk  
10 about examination of nicotine and phosphate data.  
11 Now is the phosphate coming from the DAP that's used  
12 by Philip Morris, the diammonium phosphate?

13 A. Yes.

14 Q. And that's the kind of ammonia they use on some  
15 of their tobacco; correct?

16 A. Yes. Their process involves treating the stem  
17 material with diammonium phosphate, and the pectic  
18 acid in tobacco stems is calcium salt. And when the  
19 diammonium phosphate hits the calcium salt, calcium  
20 phosphate is very soluble in water, so you end up  
21 with the ammonia bound to the pectic acid and the  
22 calcium phosphate not connected to it at all and it's  
23 much easier to handle.

24 Q. Is it also more effective in regulating the pH  
25 level of the tobacco smoke?

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1 A. It will alter it.

2 Q. Is it more effective than your process was in --  
3 in regulating the pH level of the tobacco smoke?

4 A. Well most of them, sir, whether it be gaseous  
5 ammonia or whatever or the one that Philip Morris  
6 used, all you're talking about is three- or  
7 four-tenths of a pH unit change.

8 Q. But those three or four units can have a  
9 significant impact on how the smoker perceives the  
10 smoke; correct?

11 A. Yes. And as I say, it's probably a lot more to  
12 do with flavor than anything else.

13 Q. But again you don't say anything about flavor in  
14 this memo about free nicotine?

15 A. That's correct, right.

16 Q. And there was nothing about flavor when R.J.  
17 Reynolds was tracking free nicotine and sales as  
18 related; correct?

19 A. They did not know about it then.

20 Q. Well you knew about it in 1978?

21 A. I just goofed.

22 Q. And you didn't tell --

23 A. I just goofed, sir.

24 Q. You just goofed in a memo to the president of  
25 your company?

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1 A. I've done that before, too.

2 Q. You then conclude that PM might be adding  
3 nicotine as the phosphate salt to its sheet material;  
4 correct?

5 A. Well we were trying to figure out what they were  
6 doing, and that was as good a guess as any.

7 Q. Did you ever confirm that?

8 A. No.

9 Q. You never determined whether or not PM was  
10 adding nicotine salt?

11 A. No.

12 Q. Did R.J. Reynolds ever look at adding nicotine  
13 salt?

14 A. No, not that I know of.

15 Q. Not as of 1987?

16 A. Not to a commercial product. I can think of one  
17 case where it was added.

18 Q. And you don't know whether or not after you left  
19 RJR continued to look at adding nicotine salts to its  
20 tobacco; correct?

21 A. Not that I remember.

22 Q. Or that you knew of?

23 A. Yeah. I was trying to think of what I -- some  
24 stuff I was reading yesterday and --

25 Q. We talked earlier about the notion of

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1 compensation. Is it your understanding that smokers  
2 will compensate for the level of nicotine occurring  
3 in the tobacco smoke of the cigarette they're  
4 smoking?

5 A. Frankly, sir, I don't know that much about  
6 compensation. It was barely mentioned by the time I  
7 left. Maybe -- I don't know when it started, '85,  
8 '86, and I don't know that much about it. My only  
9 feeling is that it only became important after the  
10 tobacco industry and particularly Reynolds had tried  
11 to reach the goals that the anti-tobacco people  
12 were -- had set. Lower the tar 40 percent; we  
13 lowered it. When we got that level, they said,  
14 "Hell, that's not far enough." We lowered it. You  
15 can follow the tar/nicotine curves in sales weighted  
16 average of cigarettes, and then when we got to  
17 what -- where they thought it might be, they started  
18 to holler about compensation and flavor additions and  
19 so on, so forth.

20 Q. You said yourself that tar tends to track  
21 nicotine; correct?

22 A. Well if you look at the sales weighted average,  
23 it does.

24 Q. So if you reduce the FTC-reported tar, you're  
25 also reducing the FTC-reported nicotine; correct?

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1 A. That's right.

2 Q. Now if a smoker compensates to increase their  
3 nicotine intake from a low-nicotine product, then  
4 they're also going to take in more tar; correct?

5 A. If they do that.

6 Q. And that's the concept of compensation;  
7 correct?

8 A. Yes, that's -- some people have that view.

9 Q. So if a smoker buys a low-tar cigarette and  
10 compensates that low-tar cigarette in order to get a  
11 certain bolus or level of nicotine that that smoker  
12 needs and that smoker in fact then takes in  
13 additional nicotine as well as additional tar, then  
14 those FTC numbers are meaningless to that smoker;  
15 correct?

16 MR. ZIRLIN: Object to the form of the  
17 question.

18 A. Well as we told the FTC in 1964, the tar number  
19 was meaningless then.

20 Q. Did you go back and tell them that again when  
21 you started to market low-tar cigarettes?

22 A. No. They just put our cigarettes on the list.

23 Q. Did you ever tell that to consumers? Did you  
24 ever tell consumers of low-tar cigarettes that the  
25 tar that's reported by the FTC has nothing to do with

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1 the tar you're going to receive?

2 A. No.

3 MR. BLANCATO: Objection.

4 MR. McDERMOTT: Object to the form of the  
5 question.

6 A. That wasn't what I said, sir.

7 Q. But that's a fact, isn't it?

8 A. I don't know that.

9 Q. That's what smoking compensation's all about?

10 A. As I say, I know very little about smoking  
11 compensation. My feeling about that is if it is a  
12 true bill of goods, why didn't the topic of  
13 compensation ever come up when we dropped the  
14 nicotine from 3 to 2 between 1954 and 1968?

15 Compensation was never mentioned back then.

16 Q. More appropriately, if it's a complete bill of  
17 goods, why didn't the cigarette industry start  
18 telling people when they started marketing cigarettes  
19 as, quote, "low tar" with an assumption that those  
20 cigarettes were healthier than in fact the figures  
21 they were reporting and that they were putting on the  
22 packages and in their advertising had nothing to do  
23 with the tar and nicotine that the people were  
24 actually getting?

25 A. The figures from --

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1                   MR. McDERMOTT: Object to the form of the  
2 question, compound, and you're arguing with the  
3 witness.

4                   MR. BLANCATO: You're asking for  
5 speculation.

6 A. The figures on the package are not ours.

7 Q. Does that prevent you from saying anything about  
8 those figures, sir?

9                   MR. McDERMOTT: Object to the form of the  
10 question.

11 Q. Does that prevent you from taking out a  
12 full-page ad in a newspaper saying that the FTC tar  
13 and nicotine numbers mean absolutely nothing?

14 A. Well --

15                  MR. BLANCATO: Objection.

16                  MR. McDERMOTT: Object to the form of the  
17 question. You're badgering the witness.

18 A. I don't know what you're trying to get at, sir.

19 Q. Could the industry have done that?

20                  MR. BLANCATO: Objection, --

21                  MR. McDERMOTT: Objection.

22                  MR. BLANCATO: -- asking for speculation.

23 A. That's speculation, isn't it?

24 Q. You're with the industry. You worked at this  
25 industry for --

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1 A. I'm not with the industry.

2 Q. You worked with this industry for 30 years,  
3 sir. Do you think the industry could have done that  
4 if it was in their best interest to do so?

5 A. I think the --

6 MR. BLANCATO: Objection.

7 MR. McDERMOTT: Objection.

8 A. The -- as I said, the -- we did everything we  
9 could with the FTC in 1964. They wouldn't listen to  
10 us. Now they're complaining.

11 MR. BLANCATO: Is this going to be 1067?

12 MR. O'FALLON: I believe so.

13 (Plaintiffs' Exhibit 1067 was marked  
14 for identification.)

15 BY MR. O'FALLON:

16 Q. I've marked as Exhibit 1067 a document Bates  
17 stamp numbered 50100 6404 through 50100 6461.

18 A. Uh-huh.

19 Q. Have you seen this document previously?

20 A. My initials are in the upper right-hand corner.

21 Q. So this would indicate that this is a document  
22 that you had in your file?

23 A. No, that indicates that when it was finished, I  
24 approved it for --

25 Q. And presumably you read it before you approved

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1 it; correct?

2 A. Oh, yes.

3 Q. One of the subjects of this document, which is  
4 dated January 18th, 1983, is smoking compensation;  
5 correct?

6 A. Let me refresh my -- yeah, okay. Right.

7 Q. Okay. Under the "SUMMARY" it states  
8 "Differences in smoking characteristics (e.g., puff  
9 volume, puffing frequency, puff duration, et cetera)  
10 among smokers of brands differentiated as to," quote,  
11 "'strength,'" end quote, "(i.e., full-flavor,  
12 fuller-flavor-low-'tar', ultra-low-'tar') do exist  
13 and are consistent with the idea that smokers adjust  
14 smoking characteristics on the basis of perceived  
15 'strength' or impact"; correct?

16 A. Yes.

17 Q. And again when they're talking about strength or  
18 impact here, they're talking about nicotine;  
19 correct?

20 A. I don't believe they are.

21 Q. It goes on to say "Changes in smoking  
22 characteristics made by smokers when switching among  
23 brands of different strengths are consistent with the  
24 idea of," quote, "'compensation,'" end quote;  
25 correct?

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1 A. Yes.

2 Q. "Smokers employ various tactics in compensation,  
3 which depend upon the smoker's usual brand and the  
4 brand to which he or she is switched. These tactics  
5 may be subtle in effect. In general, smokers  
6 habituated to a brand of a given level of 'strength'  
7 or impact will modify their smoking behavior to  
8 obtain less or more smoke from a brand which is  
9 'stronger' or 'weaker', respectively, than their  
10 normal brand"; correct?

11 A. Yes, that's what they said.

12 (Discussion off the record between  
13 the witness and his counsel.)

14 Q. On the introduction on page 6409 it states,  
15 quote, "The literature of smoking characteristic  
16 research, reviewed in 1980 ..., indicates that the  
17 nature of the cigarette smoked is a major factor in  
18 determining the volume, duration, frequency, and  
19 number of puffs taken by human smokers. While the  
20 evidence is conflicting, it indicates that lower  
21 'tar' and nicotine cigarettes are smoked with puffs  
22 larger in volume, taken more frequently than higher  
23 'tar' and nicotine ones, and that more puffs are  
24 taken of the weaker cigarettes than the stronger  
25 ones"; correct?

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1 A. Right.

2 Q. "There is conflicting evidence regarding the  
3 independent effects of 'tar' and nicotine"; correct?

4 A. Right.

5 Q. Thus, it would appear that smokers of low-tar  
6 cigarettes actually take in more smoke than smokers  
7 of full-flavored cigarettes; correct?

8 MR. McDERMOTT: Object to the form of the  
9 question.

10 A. Where is that?

11 Q. It's not there. It's just a reasonable  
12 conclusion, isn't it?

13 A. Would you say that again, sir? I was so busy  
14 looking for where you were that --

15 Q. I said, "Thus, it would appear that smokers of  
16 low-tar cigarettes actually take in more smoke than  
17 smokers of full-flavored cigarettes; correct?"

18 A. That may be true for some and not for others.

19 MR. McDERMOTT: Objection.

20 Q. As a general statement, that's true, isn't it?

21 MR. McDERMOTT: Objection, no foundation.

22 A. I really don't know.

23 Q. Well let's look on page 12.

24 A. That's 412?

25 Q. 6415, Bates number 6415. On the second

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1 paragraph, the second -- the first full paragraph,  
2 the second paragraph on the page, it says "The number  
3 of puffs taken per cigarette is seen to be nearly the  
4 same for full-flavor and fuller-flavor-low-tar  
5 smokers while the" ultralight -- or "the ultralow-tar  
6 smokers took significantly more puffs"; correct?

7 A. Yes.

8 Q. And presumably if you're taking more puffs,  
9 you're also taking more cigarette smoke into your  
10 lung; correct?

11 A. Maybe. Depends on the size of the puff. After  
12 all, they -- you know, the FTC machine is set at  
13 35-milliliter puffs by dictate, and there are -- very  
14 few smokers take that volume.

15 Q. It says "Thus," while "the" F -- "the  
16 full-flavor and full-flavor-low-tar smokers took  
17 three or four more puffs than predicted by standard  
18 smoking methods." Oh, it says "Thus, the full-flavor  
19 and full-flavor-low-tar smokers took three or four  
20 more puffs than predicted by standard smoking  
21 methods, while the" ultra -- "ultralow-tar smokers  
22 took about seven 'extra' puffs"; correct?

23 A. Right. And as the next paragraph says, there's  
24 quite a difference in the puffs.

25 Q. Well let's look on page 6416.

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1 A. 6416.

2 Q. At the bottom. It says "In summary, groups of  
3 smokers categorized by regular brand usage (full  
4 flavor, full flavor low tar and ultralow tar) were  
5 found to have significant differences among their  
6 smoking characteristics. Ultralow-tar smokers tended  
7 to take more puffs per cigarette and consume their  
8 cigarettes faster, thus taking more puffs per unit  
9 time"; correct?

10 A. Right.

11 Q. "Full-flavor smokers tended to take puffs of  
12 smaller volume, to have lower peak flowrates and to  
13 work less (and less hard) at puffing"; correct?

14 A. Right.

15 Q. That would again indicate that not only are the  
16 ultralow-tar smokers taking more puffs, but their  
17 volume is also greater than the volume of the  
18 full-flavor smokers; correct?

19 A. Well it says down below that mean puff volume of  
20 all three groups were greater than 35 milliliters.

21 Q. Well that just means they were greater than that  
22 used by the FTC; correct?

23 A. Right.

24 Q. Again showing that the FTC value is really  
25 worthless?

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1 A. That's what they said.

2 MR. McDERMOTT: Objection.

3 Q. And again R.J. Reynolds never told the public,  
4 the smoking public, that the FTC values were  
5 worthless; correct?

6 MR. McDERMOTT: Objection, asked and  
7 answered. This is an improper line of questioning in  
8 any event.

9 MR. O'FALLON: Why?

10 MR. McDERMOTT: Preemption and no  
11 foundation.

12 Q. Let's look on page 6418. I'm looking at the top  
13 of the page.

14 A. Uh-huh.

15 Q. This is talking about the subgroup of  
16 full-flavor smokers that were switched to the  
17 ultralow-tar cigarettes; correct?

18 A. Right.

19 Q. And it talks about the adjustments they made in  
20 their puffing characteristics; correct?

21 A. Right.

22 Q. "The average puff volume was increased 25  
23 percent on smoking the ULT brand as compared to the  
24 full-flavor brand"; correct?

25 A. Yes.

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1 Q. "The puff frequency declined by 27 percent on  
2 smoking the ULT brand; i.e., the puffs of the ULT  
3 brand were taken more frequently"; correct?

4 A. Wait a minute. "Puff frequency declined," that  
5 doesn't read right to me. The puff frequency  
6 declined, then there would be fewer puffs to consume  
7 the cigarette.

8 Q. But apparently these folks are defining it as  
9 the puffs of the ULT brand were taken more  
10 frequently; correct?

11 A. I don't understand the sentence frankly.

12 Q. They then go on to say "The total puff volume  
13 was higher for the ULT brand by 44 percent"; correct?

14 A. Right.

15 Q. In other words, what this would indicate is that  
16 the smokers of the full-flavor brands that are  
17 switched over to the low-tar brands are taking in a  
18 lot more smoke; correct?

19 MR. McDERMOTT: Object, misstates the  
20 contents of the document. It says "volume."

21 A. Where are you, sir? The --

22 Q. I am extrapolating from the evidence, sir.

23 A. Well --

24 Q. Wouldn't you agree that what this indicates is  
25 that these full-flavor smokers who are switched over

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1 to the low-tar brands are taking in more tobacco  
2 smoke?

3 A. I don't know that.

4 Q. Wouldn't you agree they're taking in a larger  
5 volume of tobacco smoke?

6 A. Well that's what it says, the puff volume was  
7 higher for the ULT by 44 percent. Is that what  
8 you're talking about?

9 Q. I don't know. This was sent to you. How did  
10 you interpret it when you first read it?

11 A. Well I was a lot smarter on it -- about it then  
12 than I am now, sir. This is 14 years ago.

13 Q. By the way, this would indicate that there was a  
14 fair amount going on concerning compensation at RJR  
15 and that it didn't start in 1985 or 1986; correct?

16 A. Well this -- this was when the -- if you will,  
17 the biobehavioral thing was just getting underway.

18 Q. But you -- you earlier testified that this  
19 research didn't start until '86 or so; correct?

20 A. I thought it started a couple of years after  
21 Dr. Morse or Dr. DiMarco came and he got permission.  
22 I guess I was thinking that it was more in the year  
23 or two after that started, and I just erred in the  
24 date.

25 Q. In general, these findings are consistent with

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1 the fact that smokers do compensate for differing  
2 nicotine and tar deliveries; correct?

3 MR. McDERMOTT: Object to the form of the  
4 question.

5 A. I -- I think one of the -- well I -- according  
6 to this, yes, but I think one of the things, that  
7 finally this compensation disappears.

8 Q. Excuse me?

9 A. The compensation maybe not totally disappears,  
10 but lessens; that if a full-flavored smoker changed  
11 to a lower rate, they compensate for a while. Down  
12 the road -- I say I'm basing this on a few things  
13 I've read -- that if you go two or three months, one  
14 of the things that's very interesting is that a  
15 full-flavored smoker who's gone, say, to a  
16 full-flavor low tar, he will compensate, but maybe  
17 two, three months down the road you'll find he's  
18 almost back to the regimen that he was using  
19 originally and the manipulation of smoking and so on.

20 Q. That's not what this document says, is it, sir?

21 A. I don't -- how long did they carry this on?

22 Q. I don't know. It's your study.

23 A. Well as I said --

24 MR. BLANCATO: Objection.

25 A. -- that was one of the things that came out

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1 later in not only our -- some of our work but other  
2 work; that if you carry the study on a little longer,  
3 that people don't completely go back to what they  
4 were doing at -- which sort of reinforced the idea  
5 that not only is smoking getting the smoke, but it's  
6 also all the manipulative things that go with it.

7 Q. So it's not just the addiction to nicotine?

8 MR. BLANCATO: Objection.

9 MR. McDERMOTT: Objection to the form of  
10 the question.

11 A. As far as I know, there is no addiction to  
12 nicotine.

13 Q. Never heard that either, huh?

14 A. I've heard the phrase. It's a term that got  
15 bastardized by the -- some people in the medical  
16 profession. It used to be habituation for nicotine.

17 Q. So now it's the medical profession that's  
18 bastardized the language, huh?

19 MR. BLANCATO: Objection.

20 A. They've done it before.

21 Q. Just can't trust those doctors, can you?

22 MR. BLANCATO: Objection.

23 MR. McDERMOTT: Objection.

24 MR. BLANCATO: You don't need to answer  
25 that.

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1                   THE WITNESS: No. I thought he was just  
2 making a statement.

3 Q. It's a statement you'd agree with, isn't it?

4 A. No.

5                   MR. BLANCATO: Objection.

6 Q. Huh?

7 A. No, I've got -- known -- I worked at a place  
8 with doctors I would trust any way you want.

9                   MR. BLANCATO: Can we take a little  
10 five-minute break and then finish up?

11                  MR. O'FALLON: Sure, that would be fine.

12                  THE REPORTER: Off the record, please.

13                  (Recess taken.)

14                  (Plaintiffs' Exhibit 1068 was marked  
15 for identification.)

16 BY MR. O'FALLON:

17 Q. Dr. Rodgman, I've had marked as Exhibit 1068 a  
18 document Bates stamp numbered 50268 0871. Do you  
19 recognize that document?

20 A. Yes.

21 Q. This is a document to yourself from Mr. J. H.  
22 Robinson; correct?

23 A. Right.

24 Q. And it's called "Critique of 'Smokers of  
25 Low-Yield Cigarettes Do Not Consume Less Nicotine'";

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1 correct?

2 A. Yes.

3 Q. Is it a Mr. or Dr. Robinson?

4 A. Dr. Robinson.

5 Q. Dr. Robinson states that "The above mentioned  
6 paper is basically a sound scientific study. In  
7 particular, the cotinine determination method is a  
8 published and accepted .... One of the few  
9 criticisms of this method is that it involves a  
10 multiple extraction procedure which can be subject to  
11 contamination from a number of sources."

12 The cotinine determination method is a method  
13 whereby the level of nicotine in a smoker's blood is  
14 determined; correct?

15 A. Yes. Well it could be in blood or urine.

16 Q. Cotinine is a by-product of nicotine. It's a  
17 metabolite; correct?

18 A. Yes.

19 Q. It says "The paper itself expresses what we in  
20 Biobehavioral have," quote, "'felt,' " end quote,  
21 "for quite some time. That is, smokers smoke  
22 differently than the FTC machine and may very well  
23 smoke to obtain a certain level of nicotine in their  
24 bloodstream"; correct?

25 A. Yes.

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1 Q. "If a given level of nicotine in the blood is  
2 the final goal of a smoker, one would predict that he  
3 would smoke a full-flavor and a ultralow-tar  
4 cigarette differently"; correct?

5 A. Uh-huh.

6 Q. If the smoker could obtain the same nicotine in  
7 his bloodstream from a full-flavor and an  
8 ultralow-tar cigarette by modifying his  
9 puffing/inhaling pattern, it would be expected that  
10 the blood cotinine level would be the same after  
11 smoking either cigarette on a regular basis";  
12 correct?

13 A. Right.

14 Q. He then states that, quote, "This all falls  
15 under the area of smoker compensation which we have  
16 been interested in studying for some time now";  
17 correct?

18 A. Right.

19 Q. I'm sorry, did you answer my question?

20 A. Pardon?

21 Q. I'm sorry, I guess I just didn't -- I missed  
22 your answer. You answered "right" to my question?

23 A. You read -- you read a thing, said did they say  
24 that, and I said yes.

25 Q. Okay. I'm sorry.

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1        It states "About the only serious criticism that  
2 could be leveled at this paper is that not enough is  
3 really known about the pharmacokinetics of nicotine  
4 and cotinine to determine if the data presented here  
5 are accurate. The authors admit on page 140 that  
6 cotinine is not a perfect marker for nicotine intake,  
7 but we have no reason to think that there is any  
8 relationship between rate or pattern of nicotine or  
9 cotinine metabolism and the brand of cigarette smoked  
10 that would cause our data to be biased"; correct?

11 A. That's what they said.

12 Q. Did RJR later determine that cotinine metabolism  
13 was a good established marker for nicotine level in a  
14 smoker?

15 A. I believe they did. See, soon after this was  
16 written, if I may digress a minute, we got permission  
17 to start up the bio -- biology group, and  
18 Dr. Robinson and Dr. Reynolds were all transferred  
19 out of fundamental R&D into the bio -- biology --  
20 biochemical and biobehavioral group under Dr. Wallace  
21 Hayes, so most of this stuff from, oh, probably late  
22 '83, early '84, I never saw much of it after that.  
23 I was too busy with my own stuff.

24 Q. Dr. Robinson goes on to state in the last  
25 paragraph "Finally, the data reported in this paper

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1 remind us of the HMSM experiment done with the German  
2 Camel and Marlboro cigarettes. While there were  
3 certain imperfections in this experiment, you may  
4 recall that the smokers apparently obtained almost  
5 exactly the same amount of nicotine no matter which  
6 of the four cigarettes they smoked. This was one of  
7 the first indications that smokers may in fact smoke  
8 to obtain a certain level of nicotine in their  
9 bloodstream"; correct?

10 A. That's what he says.

11 Q. "Data like this make me feel that the data  
12 reported in this current publication are probably  
13 correct"; correct?

14 A. That's what John says.

15 Q. Okay. In large part, Dr. Robinson is basically  
16 in agreement with the information we saw from 1972  
17 that Dr. Teague was talking about, which is that  
18 smokers smoke for nicotine; correct?

19 A. Well --

20 MR. McDERMOTT: Object to the form of the  
21 question.

22 A. I guess -- well yes, in a way he does, and I  
23 think this type of work, sir, begins to work towards  
24 what had previously been speculated about, and of  
25 course if you look at what John said, it falls under

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1 the area of smoker compensation, which we have been  
2 interested in studying for some time, and this was  
3 typical of what we did at Reynolds. If something  
4 came up that there was a question about, we looked at  
5 it.

6 Q. You could have studied smoker compensation much  
7 earlier than this; correct?

8 A. Well it really didn't come up that much as an  
9 outside complaint, if you will. I -- I couldn't  
10 really put a date on it. I'd say the late '79, '80.

11 Q. Well something doesn't have to become a  
12 complaint before RJR has an interest in studying it,  
13 does it?

14 A. Well you usually get so involved in studying the  
15 complaints that you really don't go looking for  
16 something else to do.

17 Q. Didn't your own evaluation of Philip Morris  
18 indicate that Philip Morris had been studying the  
19 behavior of smokers and the nicotine intake of  
20 smokers for years in large part to design products to  
21 effectively sell to those smokers?

22 A. We tried to get permission to do that work for  
23 years.

24 Q. But R.J. Reynolds Tobacco Company blocked that  
25 work; correct?

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1 A. Well management felt we had other things to do.

2 Q. So management made a determination that research  
3 on nicotine was less important than other things;  
4 correct?

5 A. We were doing a whole raft of things on  
6 substitute tobaccos, expanded tobaccos.

7 Q. The fact of the matter is, what your previous  
8 document analyzing R.J. Reynolds' research and  
9 development department as compared to Philip Morris's  
10 development department was that R.J. Reynolds was  
11 greatly understaffed as compared to Philip Morris;  
12 correct?

13 MR. BLANCATO: Objection.

14 MR. McDERMOTT: I'll object to the form of  
15 the question.

16 A. They did have more people. I -- I don't  
17 remember the numbers.

18 Q. Wasn't it lots more?

19 MR. BLANCATO: Objection.

20 A. I said I didn't remember the numbers.

21 Q. I mean, that's the reason you were asking for  
22 this additional funding and these additional  
23 departments in large part; correct?

24 A. Yeah.

25 Q. R.J. Reynolds was playing catch-up to Philip

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1 Morris in terms of research and development, and by  
2 the middle of the 1970s they were also playing  
3 catch-up with Philip Morris in terms of cigarette  
4 sales, weren't they?

5 A. I don't know when they --

6 MR. McDERMOTT: By the beginning of -- by  
7 the middle of the 1970s?

8 MR. O'FALLON: Yes.

9 A. I don't believe so.

10 Q. Do you know when Philip Morris finally overtook  
11 RJR as the leading cigarette manufacturer in the  
12 country?

13 A. No, I don't.

14 MR. O'FALLON: Why don't we stop for the  
15 night and we'll pick up tomorrow morning.

16 THE REPORTER: Off the record, please.

17 (Deposition recessed at 4:57 o'clock  
18 p.m.)

19

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1                   C E R T I F I C A T E

2                   I, William C. LaBorde, hereby certify that  
3    I am qualified as a verbatim shorthand reporter; that  
4    I took in stenographic shorthand the testimony of  
5    ALAN RODGMAN at the time and place aforesaid; and  
6    that the foregoing transcript consisting of pages 1  
7    through 290, Volume I, is a true and correct, full  
8    and complete transcription of said shorthand notes,  
9    to the best of my ability.

10                  Dated at Winston-Salem, North Carolina,  
11   this 12th day of June 1997.

12

13

14

15                  WILLIAM C. LaBORDE

16                  Registered Professional Reporter

17                  Notary Public

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## 1 C E R T I F I C A T E

2 I, ALAN RODGMAN, the deponent, hereby  
3 certify that I have read the foregoing transcript  
4 consisting of pages 1 through 290, Volume I, and that  
5 said transcript is a true and correct, full and  
6 complete transcription of my deposition, except per  
7 the attached corrections, if any.

8

9 (Please check one.)

10

11 \_\_\_\_\_ Yes, changes were made per the attached  
12 (no.) \_\_\_\_\_ pages.

13

14 \_\_\_\_\_ No changes were made.

15

16

17 ALAN RODGMAN

18 Deponent

19

20 Sworn and subscribed to before me this day  
21 of 199\_\_\_.  
22

23

24 Notary Public

25 My commission expires: (WCL)

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